

OIL ANALYSIS REPORT







^{Machine Id} **2 (S/N GZJ00315)**

Component
Natural Gas Engine

PETRO CANADA SENTRON CG 40 (145 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Total oil added 92 gallons)

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal.

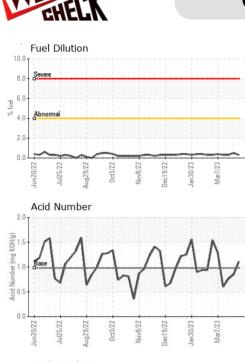
Fluid Condition

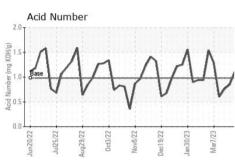
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

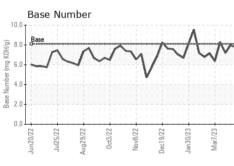
TRON CG 40 (145 GAL)							
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0699073	WC0699066	WC0699021	
Sample Date		Client Info		03 Apr 2023	27 Mar 2023	20 Mar 2023	
Machine Age	hrs	Client Info		117638	117470	117302	
Oil Age	hrs	Client Info		596	429	260	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL	
CONTAMINATION	V	method	limit/base	current	history1	history2	
Water		WC Method	>0.1	NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
ron	ppm	ASTM D5185m	>50	3	3	1	
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1	
Nickel	ppm	ASTM D5185m	>2	0	0	0	
Titanium	ppm	ASTM D5185m		0	0	0	
Silver	ppm	ASTM D5185m	>3	0	0	0	
Aluminum	ppm	ASTM D5185m	>9	3	2	2	
_ead	ppm	ASTM D5185m	>30	0	0	0	
Copper	ppm	ASTM D5185m	>35	1	1	<1	
Γin	ppm	ASTM D5185m	>4	4	3	<1	
/anadium	ppm	ASTM D5185m		0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	0	0	
Barium	ppm	ASTM D5185m	1	<1	0	0	
Molybdenum	ppm	ASTM D5185m	2	1	1	<1	
Manganese	ppm	ASTM D5185m		<1	<1	<1	
Magnesium	ppm	ASTM D5185m	9	20	16	12	
Calcium	ppm	ASTM D5185m	2712	3146	2964	2641	
Phosphorus	ppm	ASTM D5185m	292	308	280	242	
Zinc	ppm	ASTM D5185m	342	385	353	309	
Sulfur	ppm	ASTM D5185m	2575	4134	3908	3508	
CONTAMINANTS		method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	<u>^</u> 287	<u>^</u> 205	<u>▲</u> 137	
Sodium	ppm	ASTM D5185m		<1	<1	<1	
Potassium	ppm	ASTM D5185m	>20	0	<1	0	
-uel	%	ASTM D3524	>4.0	0.3	0.5	0.3	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0.1	0.1	0.1	
Nitration	Abs/cm	*ASTM D7624	>20	5.6	5.2	4.9	
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	18.8	17.3	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.6	10.3	9.3	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.98	1.11	0.85	0.76	
Base Number (BN)	mg KOH/g	ASTM D2896	8.1	7.72	7.98	7.19	

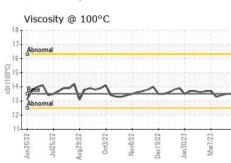


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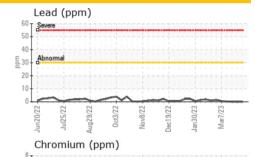


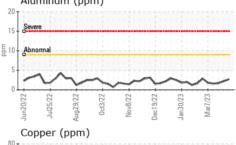


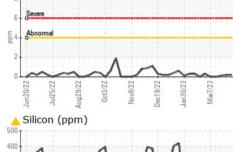
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

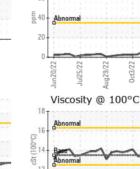
FLUID PROPER	HES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.5	13.5	13.5	13.4

	ı (ppi	m)						
100 Seve	re							
60								
Abno	ormal							
20-								
22	7 22	22	22	22	722	Z ₂	23	_
Jun20/2	Jul25/22	Aug29/22	0ct3/2	Nov8/22	Dec19/2	Jan 30/	Mar7/23	
	minuı	m (pp	m)			,		





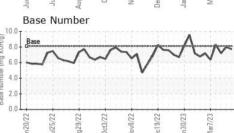






300

100





Certificate L2367

Laboratory Sample No. Unique Number : 10416320

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 05813528

: WC0699073

Received **Tested** Diagnosed

: 06 Apr 2023 : 11 Apr 2023

: 11 Apr 2023 - Don Baldridge Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

Boardman, OR US 97818 Contact: Blain Middleton bmiddleton@archaea.energy

74265 Bombing Range Road

FINLEY BIOENERGY

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)

F:

T: (541)481-3232