

OIL ANALYSIS REPORT

Area Rainbow RNB09-03 Governor GPU

Case Drain Governor System Fluid CHEVRON GST OIL ISO 68 (200 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate 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.

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ISO

Sample Rating Trend

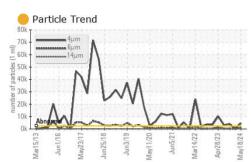
SAMPLE INFORM		method	limit/base	current	history1	history2
			mmubase			
Sample Number		Client Info		WC0926184	WC0843450	WC0843403
Sample Date	bre	Client Info		18 May 2024	29 Feb 2024	08 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0 N/A	0 N/A	
Oil Changed		Client Info				N/A
Sample Status				ATTENTION	NORMAL	ATTENTION
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	0	0
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>3	0	2	0
Lead	ppm	ASTM D5185m	>75	1	1	0
Copper	ppm	ASTM D5185m	>15	<1	<1	<1
Tin	ppm	ASTM D5185m	>55	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
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		<1	0	0
Magnesium	ppm	ASTM D5185m		<1	<1	0
Calcium	ppm	ASTM D5185m		<1	4	<1
Phosphorus	ppm	ASTM D5185m		7	3	8
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		1132	808	985
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>8	<1	<1	<1
Sodium	ppm	ASTM D5185m		2	0	<1
Potassium	ppm	ASTM D5185m	>20	2	1	0
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	4667	151	4024
Particles >6µm		ASTM D7647	>640	<mark> </mark> 1129	31	238
Particles >14µm		ASTM D7647	>80	42	2	3
Particles >21µm		ASTM D7647	>20	7	0	0
Particles >38µm		ASTM D7647	>4	1	0	0
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	— 19/17/13	14/12/9	9/15/9
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.09	0.32	0.092
13:13) Rev: 1	Contact/Location: STANLEY BOGNATZ - PPLBUT					

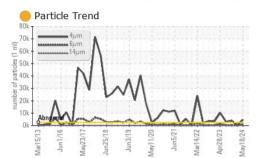
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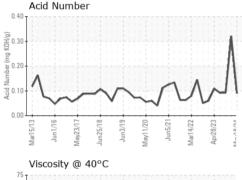
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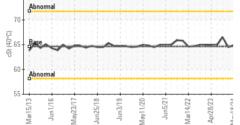


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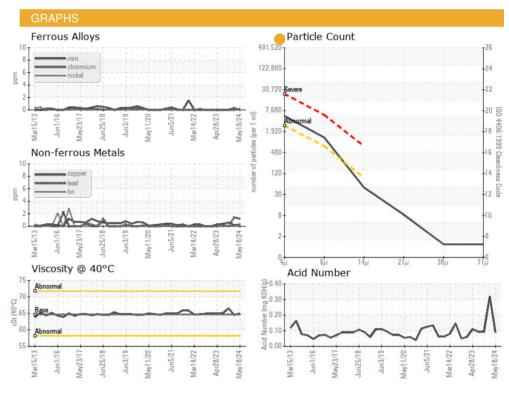








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	64.6	64.92	64.5	66.5
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color				a darra dar		and a second sec
Bottom						



NORTHWESTERN ENERGY Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0926184 6700 RAINBOW DAM RD Sample No. Received : 29 May 2024 Lab Number : 06193959 Tested : 03 Jun 2024 GREAT FALLS, MT Unique Number : 11056082 Diagnosed : 03 Jun 2024 - Jonathan Hester US 59404 Test Package : IND 2 (Additional Tests: PrtCount) Contact: STANLEY BOGNATZ Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. srb@mbesi.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (570)575-9252 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (570)227-0014

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