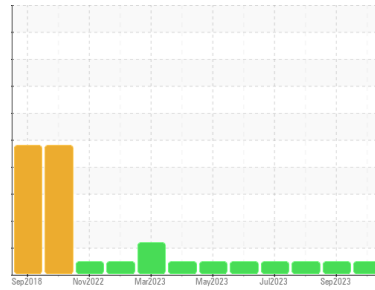




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
GENERAL DYNAMICS OTS
 Machine Id
Q022 LMG
 Component
Hydraulic System
 Fluid
PETRO CANADA HYDREX AW 46 (90 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		SBP0003995	SBP0003959	SBP0003957
Sample Date	Client Info		20 Oct 2023	12 Sep 2023	23 Aug 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	Filtered	Filtered
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		10	7	12
Iron	ppm	ASTM D5185m >40	0	<1	1
Chromium	ppm	ASTM D5185m >4	0	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >4	0	0	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >60	<1	1	1
Tin	ppm	ASTM D5185m >4	<1	0	0
Vanadium	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 0	0	0	2
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m 0	0	0	0
Magnesium	ppm	ASTM D5185m 0	7	6	8
Calcium	ppm	ASTM D5185m 50	139	137	143
Phosphorus	ppm	ASTM D5185m 330	480	504	482
Zinc	ppm	ASTM D5185m 430	689	692	704
Sulfur	ppm	ASTM D5185m 760	4438	5159	5090

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	1	1	1
Sodium	ppm	ASTM D5185m	<1	2	0
Potassium	ppm	ASTM D5185m >20	0	0	<1
Water	%	ASTM D6304 >0.05	0.011	0.016	0.018
ppm Water	ppm	ASTM D6304 >500	117.8	163.2	182.3

FLUID CLEANLINESS

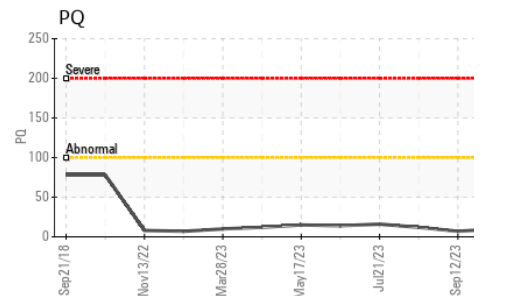
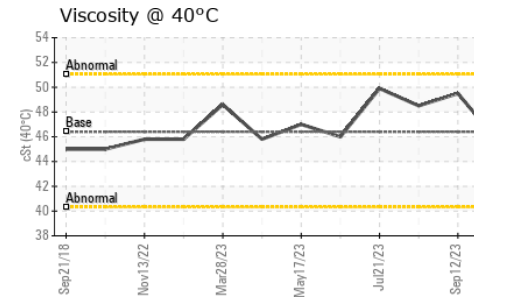
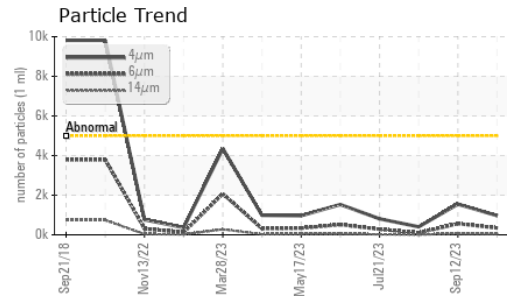
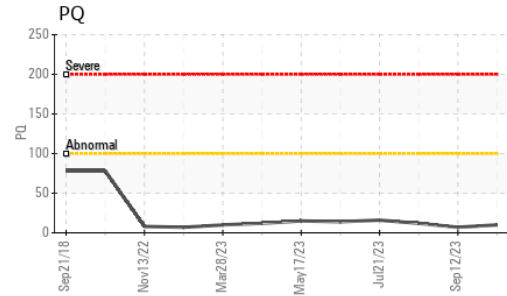
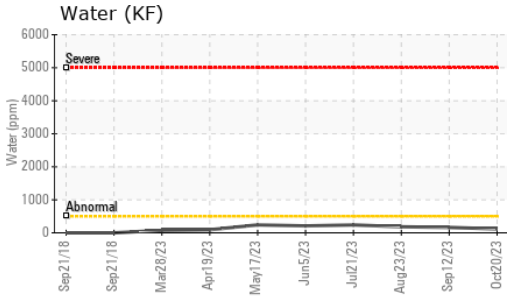
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	968	1548	403
Particles >6µm	ASTM D7647	>1300	342	564	104
Particles >14µm	ASTM D7647	>160	41	59	9
Particles >21µm	ASTM D7647	>40	10	16	3
Particles >38µm	ASTM D7647	>10	1	1	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	17/16/13	18/16/13	16/14/10

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.70	0.61	0.675	0.72



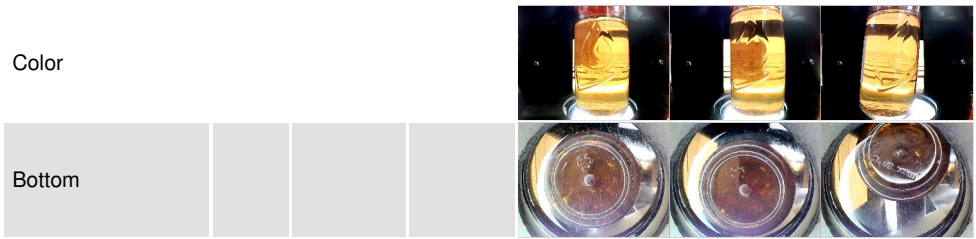
OIL ANALYSIS REPORT



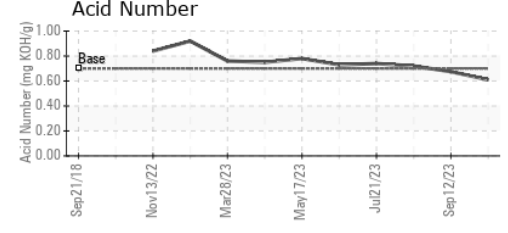
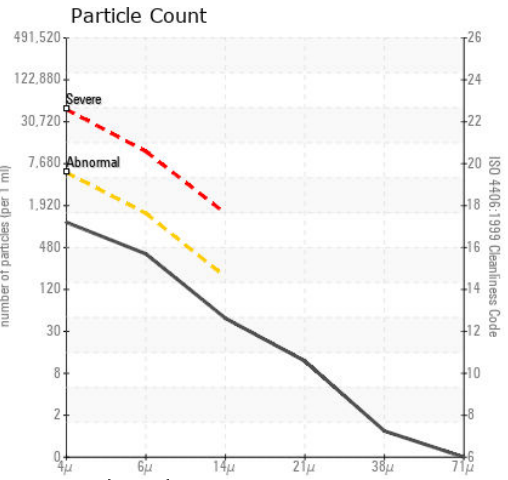
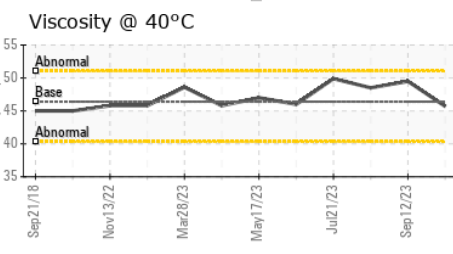
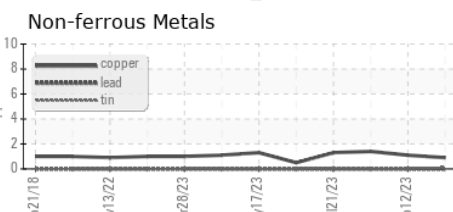
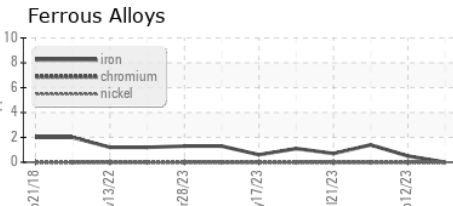
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.4	45.7	49.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0003995 **Received** : 16 Nov 2023
Lab Number : 06010195 **Diagnosed** : 17 Nov 2023
Unique Number : 10749339 **Diagnostician** : Wes Davis
Test Package : PLANT

General Dynamics OTS - 701957
 4300 Industrial Ave
 Lincoln, NE
 US 68504
 Contact: MIKE BROWN
 MICHAEL.BROWN@GD-OTS.COM
 T: (402)416-9013
 F:

Certificate L2367
 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)