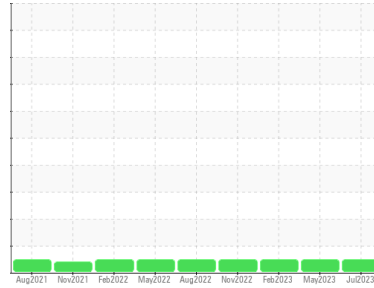


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
Galv Line
 Machine Id
[Galv Line] 690115-STEERING UNIT 5- 6
 Component
Hydraulic System
 Fluid
PETRO CANADA HYDREX AW 46 (--- 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 oil. The amount and size of particulates present in the system are 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	PCA0101438	PCA0095488	PCA0089472
Sample Date	Client Info	01 Jul 2023	01 May 2023	01 Feb 2023
Machine Age	hrs Client Info	0	0	0
Oil Age	hrs Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	Not Changd
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184	17	---	---
Iron	ppm ASTM D5185m >20	2	1	1
Chromium	ppm ASTM D5185m >20	0	0	0
Nickel	ppm ASTM D5185m >20	0	0	0
Titanium	ppm ASTM D5185m	0	<1	0
Silver	ppm ASTM D5185m	0	0	0
Aluminum	ppm ASTM D5185m >20	0	<1	0
Lead	ppm ASTM D5185m >20	<1	0	0
Copper	ppm ASTM D5185m >20	7	6	7
Tin	ppm ASTM D5185m >20	<1	0	<1
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	0
Molybdenum	ppm ASTM D5185m 0	<1	0	0
Manganese	ppm ASTM D5185m 0	0	0	0
Magnesium	ppm ASTM D5185m 0	9	11	8
Calcium	ppm ASTM D5185m 50	79	82	77
Phosphorus	ppm ASTM D5185m 330	275	275	268
Zinc	ppm ASTM D5185m 430	318	312	309
Sulfur	ppm ASTM D5185m 760	2468	2381	2420

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	0	0	<1
Sodium	ppm ASTM D5185m	0	<1	<1
Potassium	ppm ASTM D5185m >20	<1	0	0

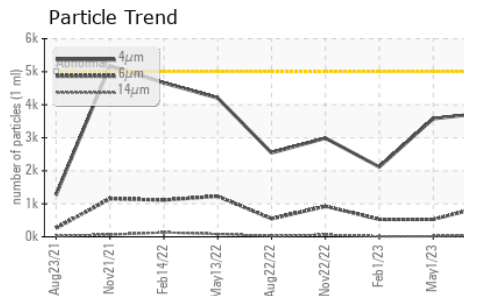
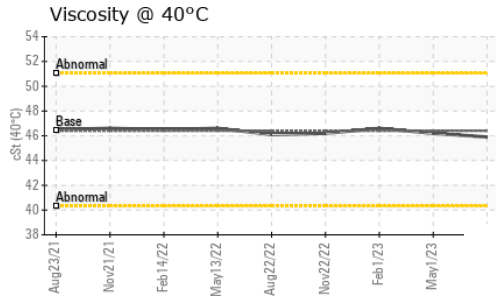
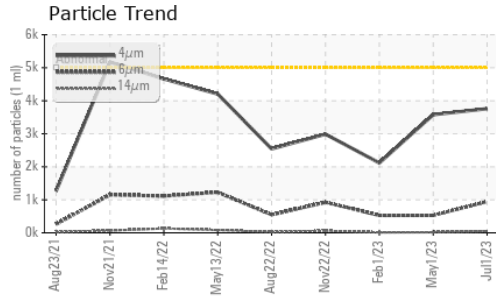
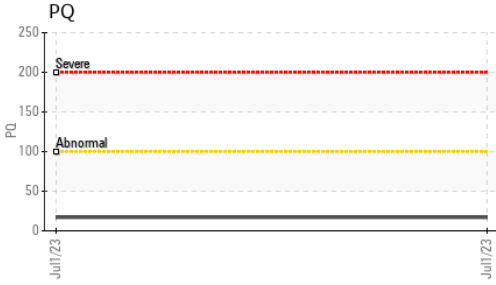
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	3759	3579	2117
Particles >6µm	ASTM D7647 >1300	946	529	528
Particles >14µm	ASTM D7647 >160	48	17	13
Particles >21µm	ASTM D7647 >40	16	6	3
Particles >38µm	ASTM D7647 >10	2	1	0
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	19/17/13	19/16/11	18/16/11

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.70	0.23	0.21	0.20

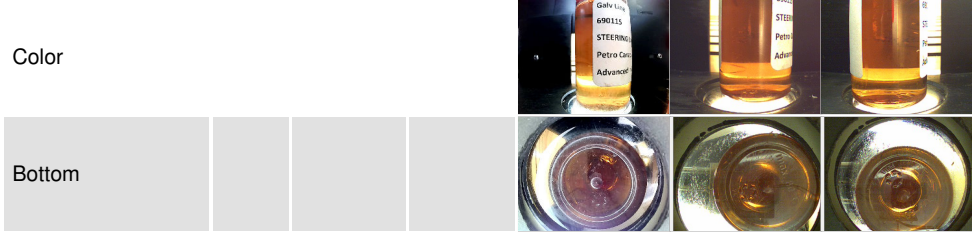
OIL ANALYSIS REPORT



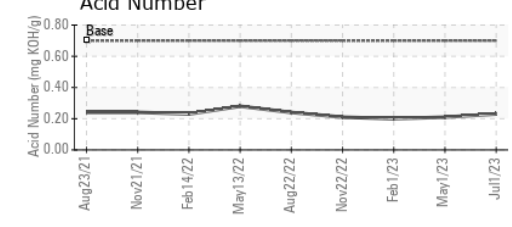
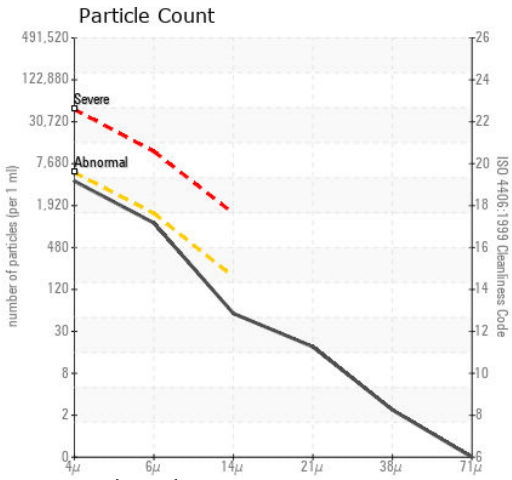
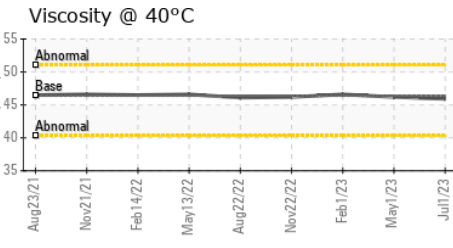
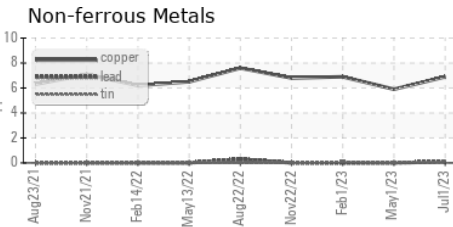
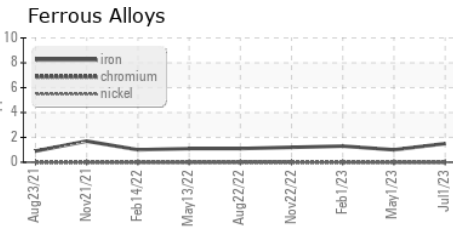
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	45.9	46.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0101438
Lab Number : 05929775
Unique Number : 10615046
Test Package : PLANT

SDI - Steel Dynamics Inc. - Heartland
 455 West Industrial Drive
 Terre Haute, IN
 US 47802
 Contact: BRAD ELLIS
 brad.ellis@steeldynamics.com

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)