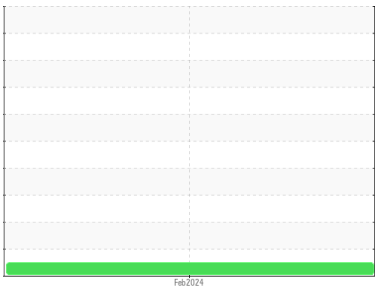
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
Plant Bulk Oil
Machine Id
[Plant Bulk Oil] 46 HYD
Component
New (Unused) Oil
Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

DIAGNOSIS

Recommendation
This is a baseline read-out on the submitted sample.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0117548**	---	---
Sample Date		Client Info		**13 Feb 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**NORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>5	**0**	---	---
Chromium	ppm	ASTM D5185m	>5	**<1**	---	---
Nickel	ppm	ASTM D5185m	>5	**0**	---	---
Titanium	ppm	ASTM D5185m		**0**	---	---
Silver	ppm	ASTM D5185m	>5	**0**	---	---
Aluminum	ppm	ASTM D5185m	>5	**1**	---	---
Lead	ppm	ASTM D5185m	>5	**0**	---	---
Copper	ppm	ASTM D5185m	>5	**0**	---	---
Tin	ppm	ASTM D5185m	>5	**0**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**2**	---	---
Barium	ppm	ASTM D5185m	0	**8**	---	---
Molybdenum	ppm	ASTM D5185m	0	**0**	---	---
Manganese	ppm	ASTM D5185m	0	**0**	---	---
Magnesium	ppm	ASTM D5185m	0	**1**	---	---
Calcium	ppm	ASTM D5185m	50	**48**	---	---
Phosphorus	ppm	ASTM D5185m	330	**318**	---	---
Zinc	ppm	ASTM D5185m	430	**415**	---	---
Sulfur	ppm	ASTM D5185m	760	**828**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	---	---
Sodium	ppm	ASTM D5185m		**0**	---	---
Potassium	ppm	ASTM D5185m	>20	**1**	---	---
Water	%	ASTM D6304		**NEG**	---	---

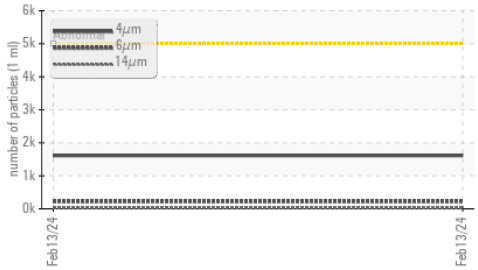
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	**1613**	---	---
Particles >6µm	ASTM D7647	>1300	**222**	---	---
Particles >14µm	ASTM D7647	>160	**20**	---	---
Particles >21µm	ASTM D7647	>40	**7**	---	---
Particles >38µm	ASTM D7647	>10	**1**	---	---
Particles >71µm	ASTM D7647	>3	**0**	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	**18/15/11**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.70	**0.35**	---	---

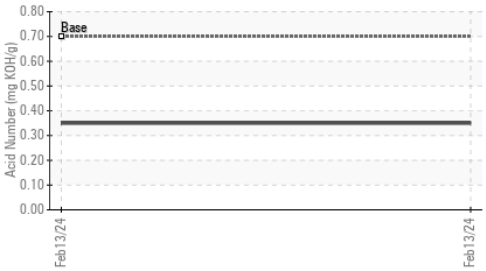
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Particle Trend

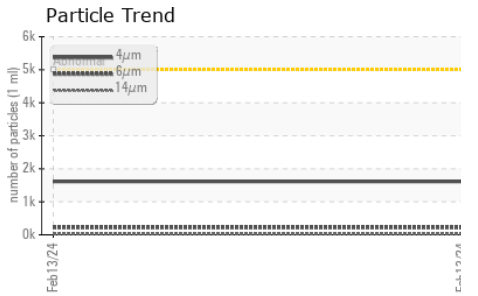


Acid Number



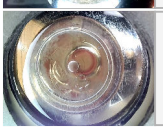
Viscosity @ 100°C

Particle Trend



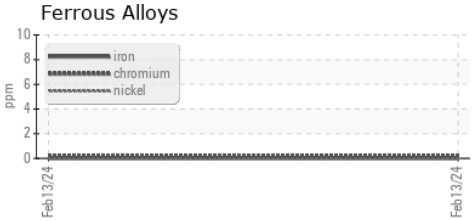
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.4	**45.88**	---	---
Visc @ 100°C	cSt	ASTM D445	6.92	**7.96**	---	---
Viscosity Index (VI)	Scale	ASTM D2270	104	**145**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

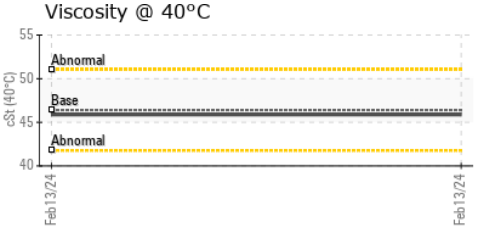
GRAPHS

Ferrous Alloys

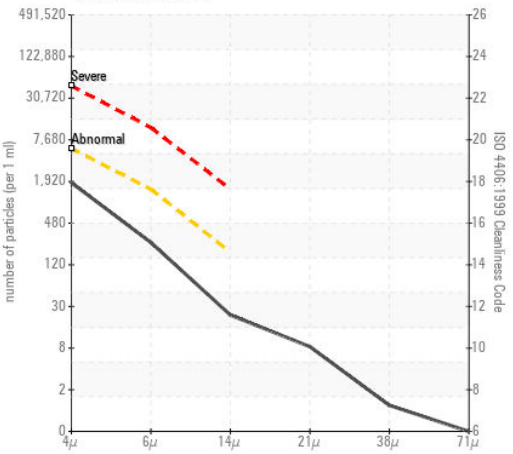


Non-ferrous Metals

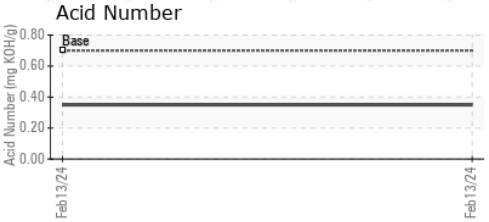
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0117548
Lab Number : 06088459
Unique Number : 10875904
Test Package : PLANT (Additional Tests: FT-IR, ICP-NewOil, KV100, VI)

Received : 13 Feb 2024
Tested : 19 Feb 2024
Diagnosed : 19 Feb 2024 - Jonathan Hester

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)

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

Report Id: SDITER [WUSCAR] 06088459 (Generated: 02/23/2024 00:32:44) Rev: 1

Contact/Location: BRAD ELLIS - SDITER