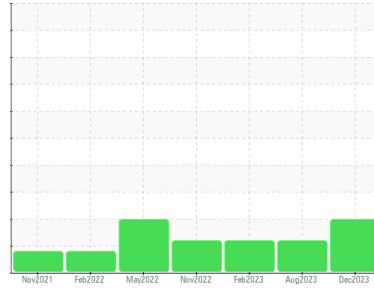


OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
Roll Shop
Machine Id
[Roll Shop] #1 Grinder-BIG GRINDER TELE-TABLE (Zcarriage)
Component
Circulating System
Fluid
PETRO CANADA ACCUFLO TK 68 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0107741	PCA0101462	PCA0089493
Sample Date	Client Info	26 Dec 2023	14 Aug 2023	01 Feb 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	Not Changd
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	6	5	5
Chromium	ppm	ASTM D5185m	0	0	0
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m	0	0	<1
Lead	ppm	ASTM D5185m	<1	0	<1
Copper	ppm	ASTM D5185m	7	<1	<1
Tin	ppm	ASTM D5185m	0	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	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m	<1	<1	<1	
Magnesium	ppm	ASTM D5185m	0	0	<1	
Calcium	ppm	ASTM D5185m	700	14	4	5
Phosphorus	ppm	ASTM D5185m	73	83	20	19
Zinc	ppm	ASTM D5185m	0	62	0	0
Sulfur	ppm	ASTM D5185m	4200	2117	3061	2768

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	<1	<1	<1	
Sodium	ppm	ASTM D5185m	3	3	1	
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water	%	ASTM D6304	NEG	NEG	NEG	

FLUID CLEANLINESS

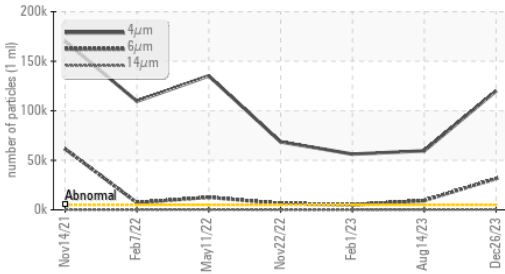
method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>5000	▲ 120024	▲ 59541	▲ 56240
Particles >6µm	ASTM D7647	>1300	▲ 31492	▲ 9284	▲ 5040
Particles >14µm	ASTM D7647	>160	▲ 210	97	29
Particles >21µm	ASTM D7647	>40	17	11	4
Particles >38µm	ASTM D7647	>10	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 24/22/15	▲ 23/20/14	▲ 23/20/12

FLUID DEGRADATION

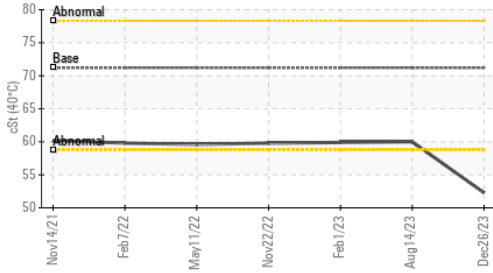
method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D8045	0.65	0.12	0.09	0.045

OIL ANALYSIS REPORT

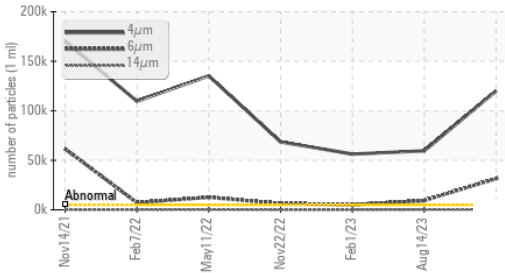
▲ Particle Trend



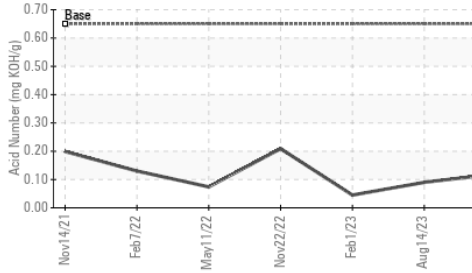
▲ Viscosity @ 40°C



▲ Particle Trend



Acid Number



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	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	71.2 ▲ 52.27	60.0	59.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

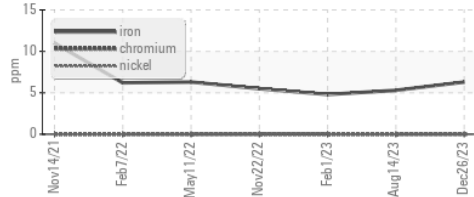
Color



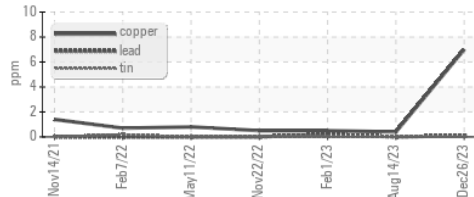
Bottom

GRAPHS

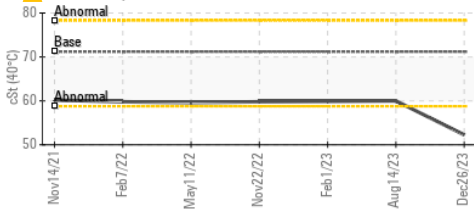
Ferrous Alloys



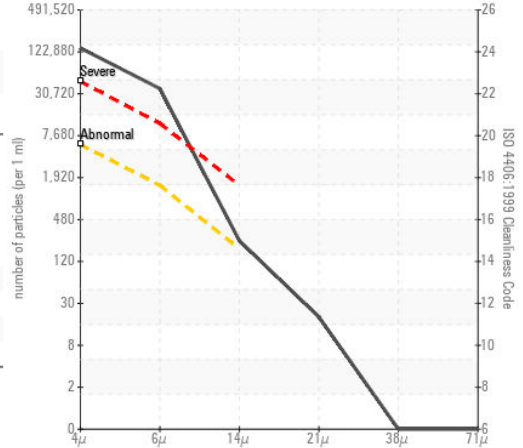
Non-ferrous Metals



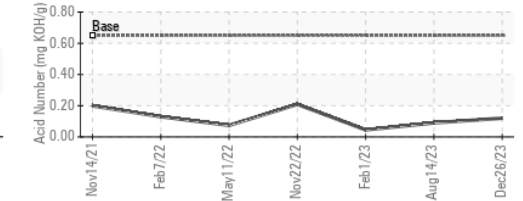
▲ Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0107741 **Received** : 27 Dec 2023
Lab Number : 06046117 **Diagnosed** : 02 Jan 2024
Unique Number : 10806725 **Diagnostician** : Jonathan Hester
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)

T:
F: