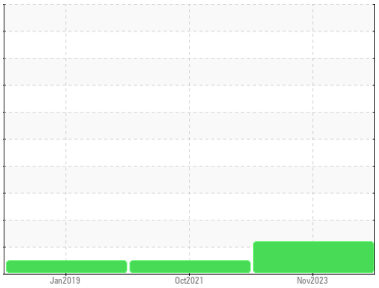
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
GM Seattle Off Raod Shop
Machine Id
[GM Seattle Off Raod Shop] 28-229
Component
Hydraulic System
Fluid
CAT HYDO (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Top Up Amount: 2 gallons)

Wear

All component wear rates are normal.

Contamination

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

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		**PE0000596**	PE12291113	PE12292136
Sample Date		Client Info		**30 Nov 2023**	20 Oct 2021	08 Jan 2019
Machine Age	hrs	Client Info		**2889**	2025	1072
Oil Age	hrs	Client Info		**2889**	2025	1072
Oil Changed		Client Info		**Oil Added**	Not Changd	N/A
Sample Status				**ATTENTION**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**12**	---	---
Iron	ppm	ASTM D5185m	>20	**7**	5	3
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	1
Aluminum	ppm	ASTM D5185m	>10	**2**	1	1
Lead	ppm	ASTM D5185m	>10	**<1**	0	0
Copper	ppm	ASTM D5185m	>75	**6**	6	5
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	1	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	---	---

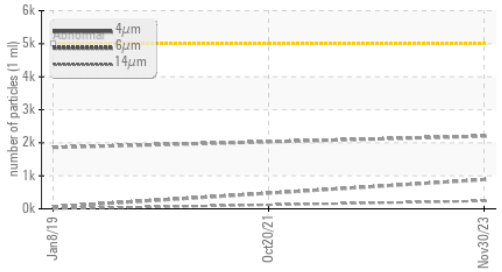
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	1	---
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	---	---
Magnesium	ppm	ASTM D5185m		**3**	2	3
Calcium	ppm	ASTM D5185m		**195**	187	144
Phosphorus	ppm	ASTM D5185m	1100	**734**	701	613
Zinc	ppm	ASTM D5185m	1210	**956**	938	818
Sulfur	ppm	ASTM D5185m		**1773**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**2**	2	1
Sodium	ppm	ASTM D5185m		**0**	2	0
Potassium	ppm	ASTM D5185m	>20	**<1**	1	0

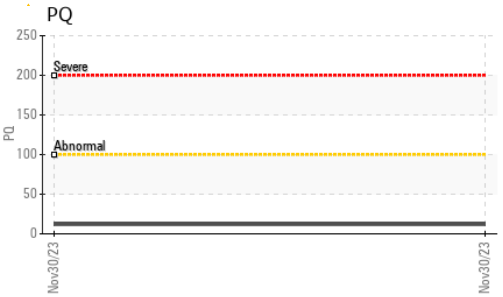
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**2200**	---	1861
Particles >6µm		ASTM D7647	>1300	**887**	---	61
Particles >14µm		ASTM D7647	>160	▲ **236**	---	3
Particles >21µm		ASTM D7647	>40	▲ **99**	---	2
Particles >38µm		ASTM D7647	>10	**7**	---	<1
Particles >71µm		ASTM D7647	>3	**1**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **18/17/15**	17/15/12	18/13/9

OIL ANALYSIS REPORT

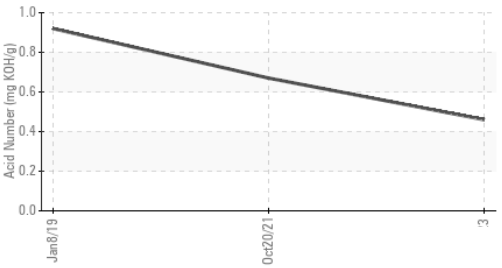
Particle Trend



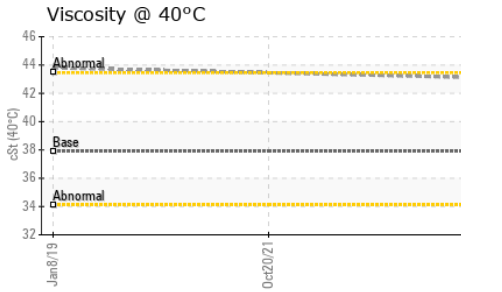
PQ



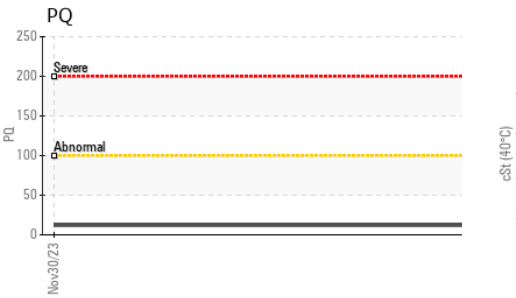
Acid Number



Viscosity @ 40°C



PQ



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.46**	0.67	0.92

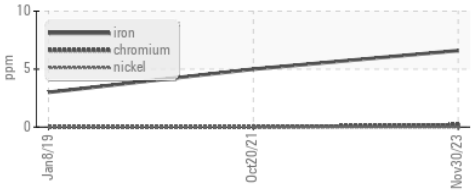
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.1	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	37.9	**43.1**	---	43.8

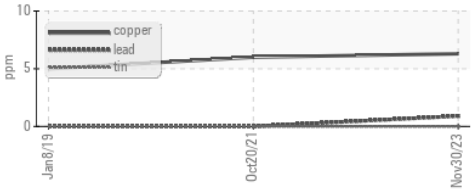
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

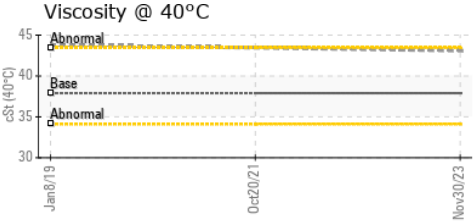
Ferrous Alloys



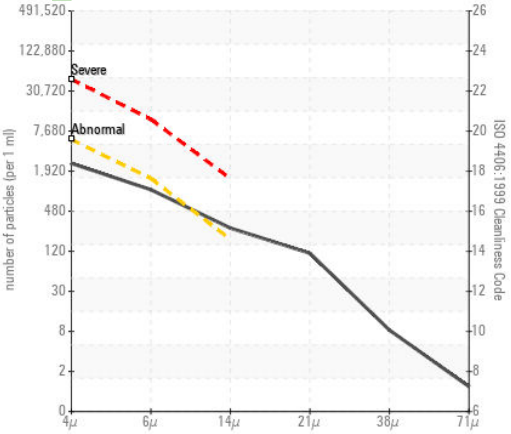
Non-ferrous Metals



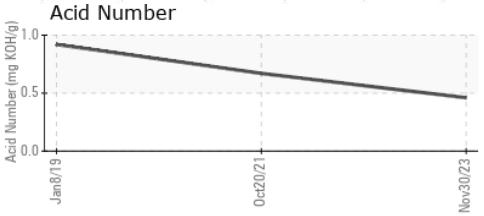
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0000596
Lab Number : 06060146
Unique Number : 10831528
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

Recieved : 12 Jan 2024
Diagnosed : 16 Jan 2024
Diagnostician : Don Baldridge

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)

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US 98108
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oilsamples@gmccinc.com
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Report Id: GARSEA [WUSCAR] 06060146 (Generated: 01/16/2024 14:21:16) Rev: 1

Submitted By: Stoneway Concrete - Seattle - Jesse Patterson