



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
MCAVOY MCDUGAL
Machine Id
783 783
Component
Right Final Drive
Fluid
SHELL SPIRAX HD 85W140 (1 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0939227	WCMCF50892	WCMCF16813
Sample Date		Client Info		24 May 2024	04 May 2018	29 Jan 2016
Machine Age	hrs	Client Info		3226	2240	2699
Oil Age	hrs	Client Info		1366	2240	582
Filter Age	hrs	Client Info		1366	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Not Changed	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	34	38	80
Chromium	ppm	ASTM D5185m	>10	<1	1	1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	2	0
Aluminum	ppm	ASTM D5185m	>25	0	<1	<1
Lead	ppm	ASTM D5185m	>25	<1	1	1
Copper	ppm	ASTM D5185m	>50	27	18	28
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

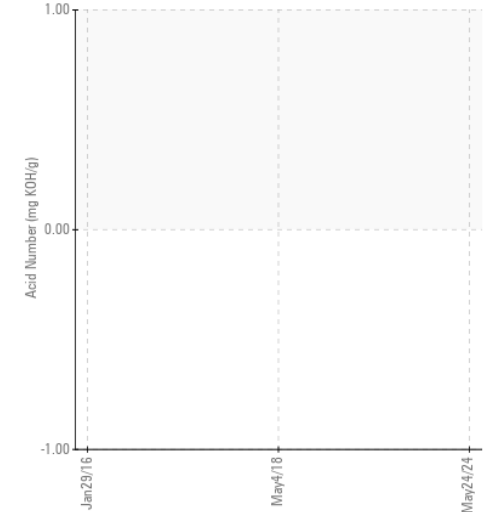
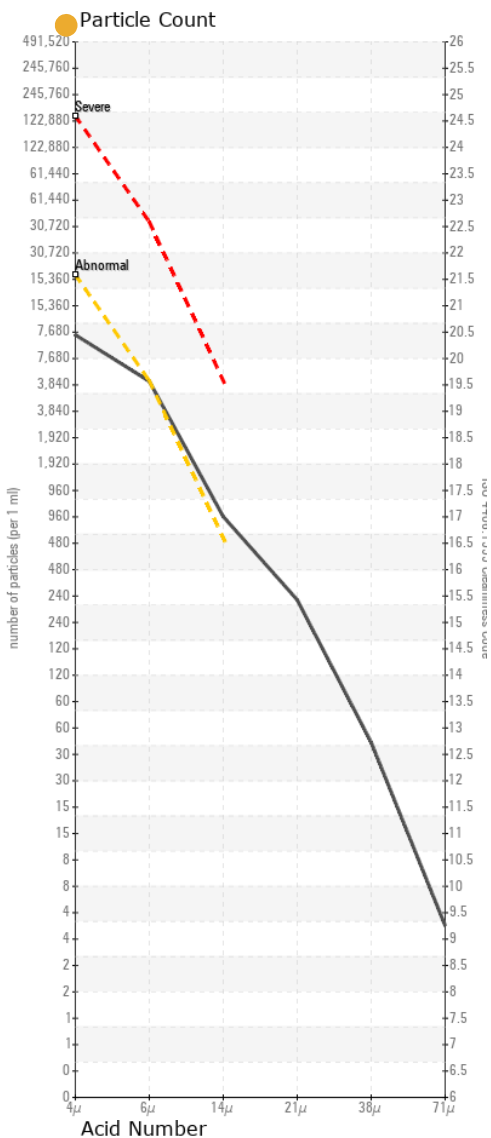
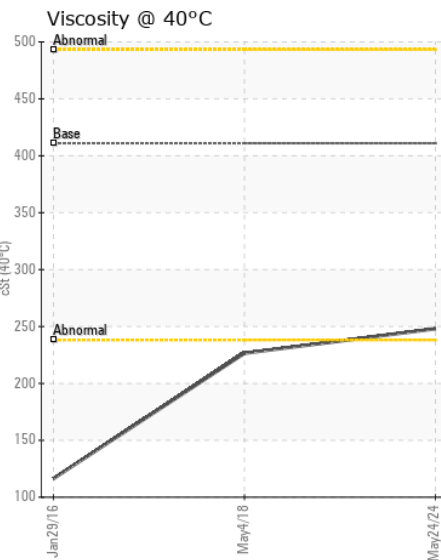
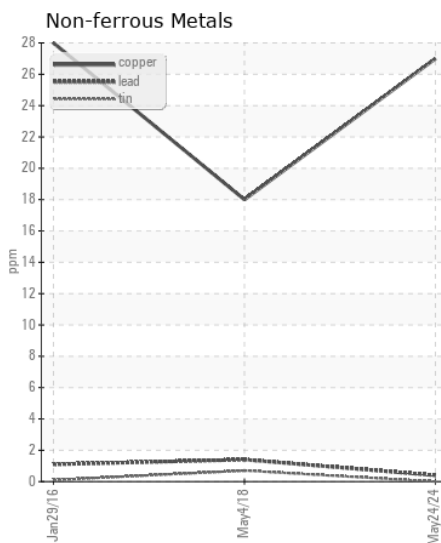
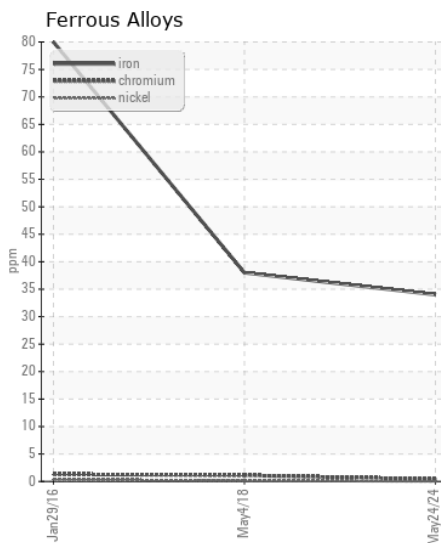
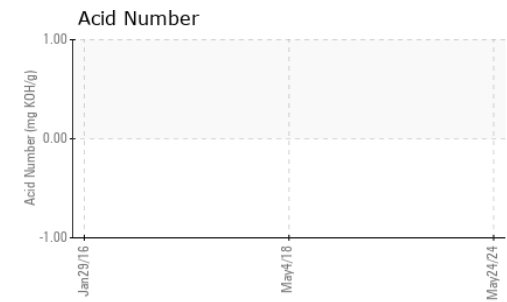
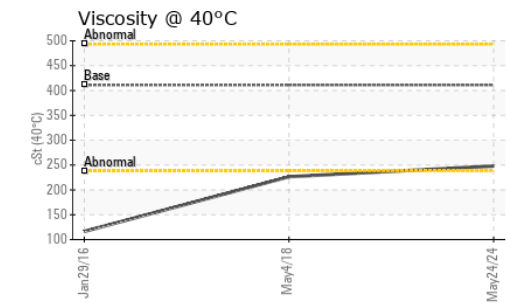
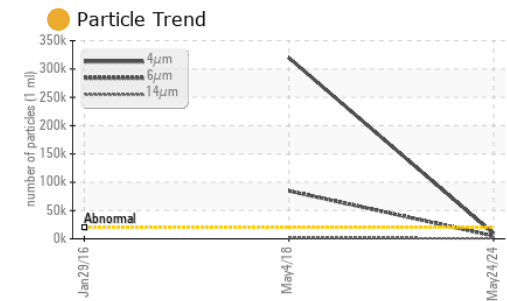
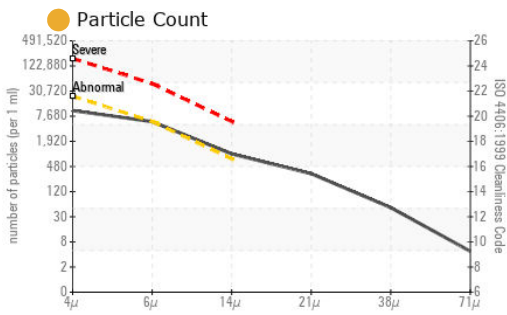
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>75	2	3	3
Potassium	ppm	ASTM D5185m	>20	<1	3	4
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	9108	▲ 319742	---
Particles >6µm		ASTM D7647	>5000	4962	▲ 84652	---
Particles >14µm		ASTM D7647	>640	844	▲ 1346	---
Particles >21µm		ASTM D7647	>160	284	▲ 187	---
Particles >38µm		ASTM D7647	>40	44	4	---
Particles >71µm		ASTM D7647	>10	4	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/17	▲ 25/24/18	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	VLITE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		6	5	9
Boron	ppm	ASTM D5185m		159	141	9
Barium	ppm	ASTM D5185m		0	<1	<1
Molybdenum	ppm	ASTM D5185m		3	3	0
Manganese	ppm	ASTM D5185m		1	2	3
Magnesium	ppm	ASTM D5185m		37	38	19
Calcium	ppm	ASTM D5185m		117	122	134
Phosphorus	ppm	ASTM D5185m		1009	731	291
Zinc	ppm	ASTM D5185m		144	121	89
Sulfur	ppm	ASTM D5185m		27981	12433	12591
Visc @ 40°C	cSt	ASTM D445	411	248	226.5	● 116.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939227 **Received** : 29 May 2024
Lab Number : 06193851 **Tested** : 01 Jun 2024
Unique Number : 11055974 **Diagnosed** : 01 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PrtCount)

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)

CAROLINA SUNROCK
 PO BOX 25
 BUTNER, NC
 US 27509

Contact: Leigh Dennis
 rdennis@thesunrockgroup.com

T: (919)575-4505

F: (919)575-0162