



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
MEV
Machine Id
MEV (S/N FLANKING)
Component
Hydraulic System
Fluid
CHEVRON RANDO HD 68 (200 GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0055091	MW0055088	MW0043838
Sample Date		Client Info		09 Dec 2023	12 Oct 2023	15 Jul 2023
Machine Age	hrs	Client Info		8145	0	0
Oil Age	hrs	Client Info		8145	6735	4742
Filter Age	hrs	Client Info		8145	6735	4742
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				ABNORMAL	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	0	2	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	0	2	<1
Lead	ppm	ASTM D5185m	>20	0	<1	<1
Copper	ppm	ASTM D5185m	>20	<1	1	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

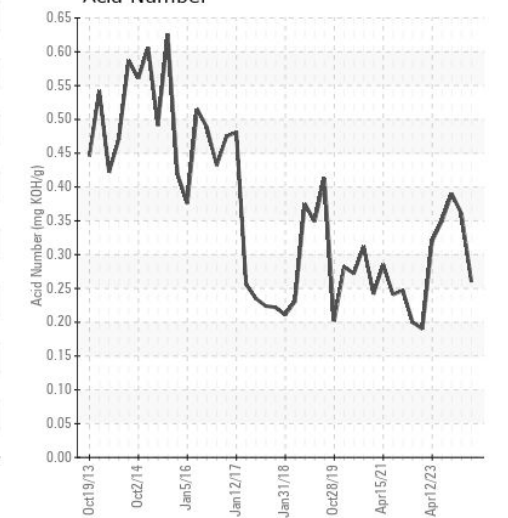
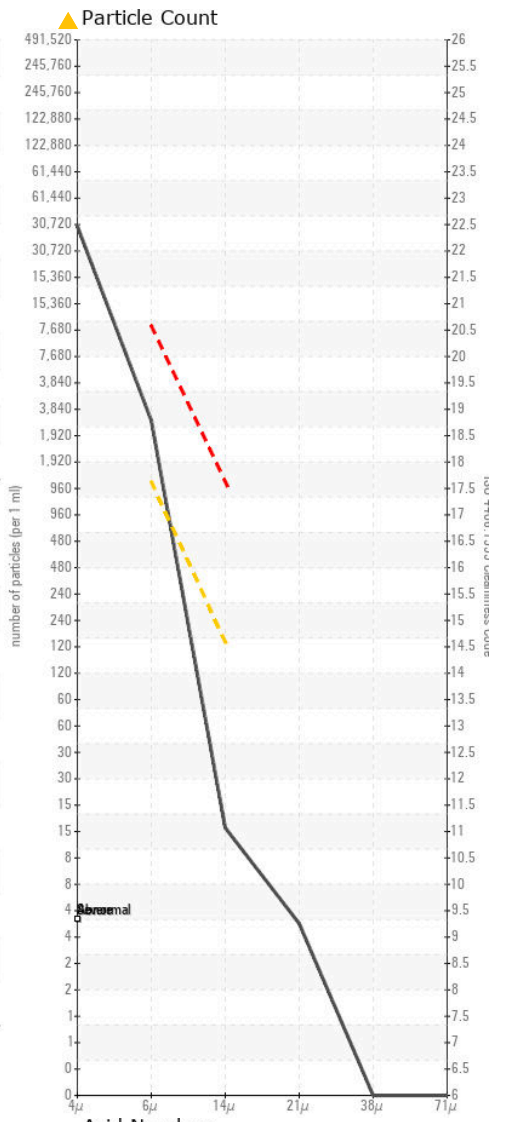
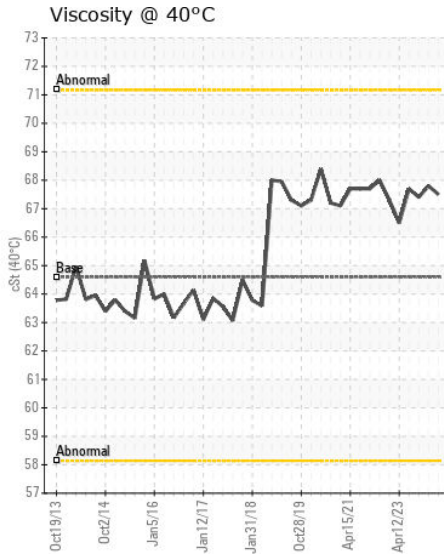
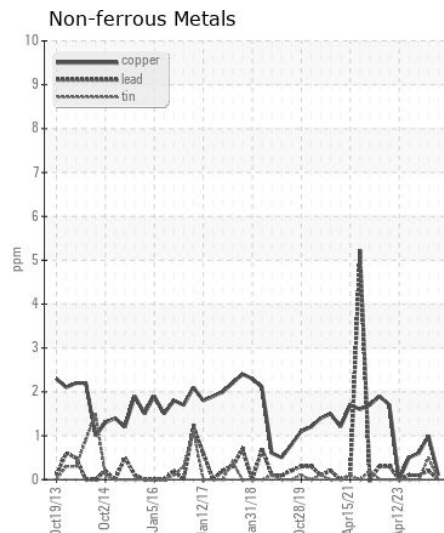
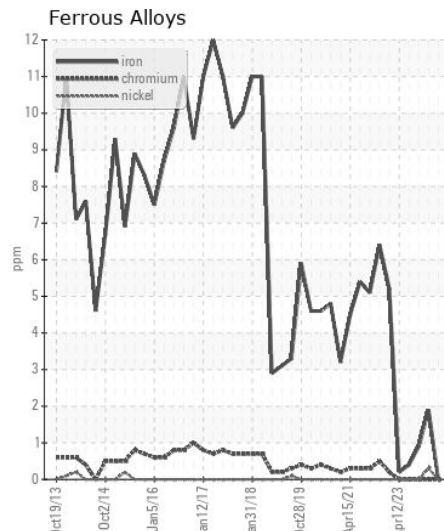
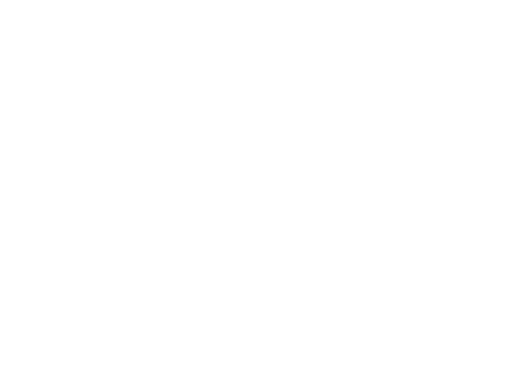
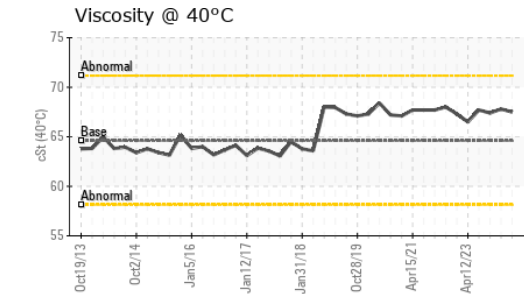
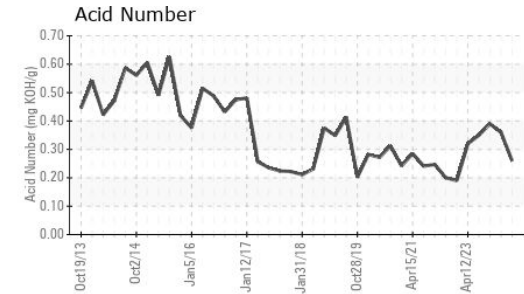
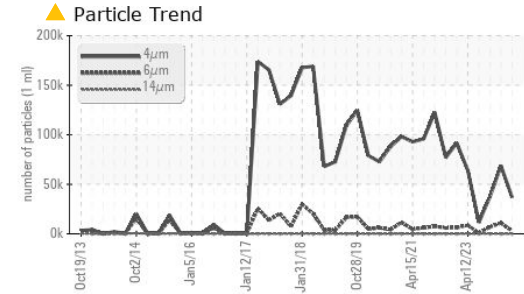
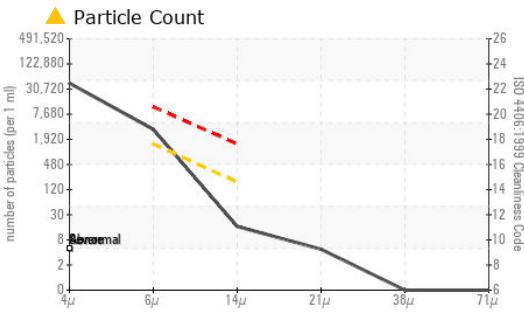
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Silicon	ppm	ASTM D5185m	>15	0	0	0
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647		36838	68664	37532
Particles >6µm		ASTM D7647	>1300	2897	10923	6898
Particles >14µm		ASTM D7647	>160	14	75	58
Particles >21µm		ASTM D7647	>40	4	8	5
Particles >38µm		ASTM D7647	>10	0	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>-/17/14	22/19/11	23/21/13	22/20/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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	>0.05	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	1	<1
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		0	<1	0
Calcium	ppm	ASTM D5185m		46	50	47
Phosphorus	ppm	ASTM D5185m		345	275	347
Zinc	ppm	ASTM D5185m		434	416	457
Sulfur	ppm	ASTM D5185m		769	884	929
Acid Number (AN)	mg KOH/g	ASTM D8045		0.26	0.36	0.39
Visc @ 40°C	cSt	ASTM D445	64.6	67.5	67.8	67.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0055091 **Received** : 10 Jan 2024
Lab Number : 06056614 **Diagnosed** : 11 Jan 2024
Unique Number : 10822563 **Diagnostician** : Wes Davis
Test Package : MAR 2

AMERICAN RIVER TRANSPORTATION CO.
 P.O. BOX 2889
 ST. LOUIS, MO
 US 63111
 Contact: BRIAN GRIEWING
 brian.griewing@adm.com
 T:
 F: (314)481-5278

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)