

OIL ANALYSIS REPORT

BARRIER DEPARTMENT SAMPLES REIFENHAUSER WEB 15 G Component

Gearbox Fluic

TEXACO MEROPA 220 (10 GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

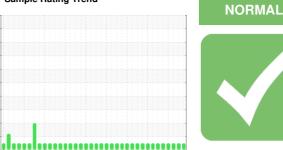
All component wear rates are normal.

Contamination

There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Sample Rating Trend

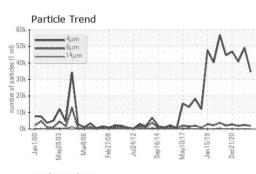
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0821050	WC0692863	WC0608726
Sample Date		Client Info		20 Nov 2023	30 Oct 2022	24 Jan 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	7	7	8
Chromium	ppm	ASTM D5185m	>15	<1	0	0
Nickel	ppm	ASTM D5185m	>15	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	2	<1	<1
Lead	ppm	ASTM D5185m	>100	0	<1	0
Copper	ppm	ASTM D5185m	>200	2	2	2
Tin	ppm	ASTM D5185m	>25	0	<1	0
Antimony	ppm	ASTM D5185m	>5			0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
	ppm	method ASTM D5185m	limit/base 3.2	current 4	history1 7	history2 22
	ppm ppm		3.2			
Boron Barium		ASTM D5185m	3.2	4	7	22
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	3.2 0.5	4 0	7 0	22 0
Boron	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5	4 0 73	7 0 69	22 0 72
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1	4 0 73 0	7 0 69 0	22 0 72 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1	4 0 73 0 56	7 0 69 0 53	22 0 72 <1 55
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6	4 0 73 0 56 19	7 0 69 0 53 19	22 0 72 <1 55 20
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159	4 0 73 0 56 19 295	7 0 69 0 53 19 268	22 0 72 <1 55 20 278
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5	4 0 73 0 56 19 295 86	7 0 69 0 53 19 268 89	22 0 72 <1 55 20 278 94
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	4 0 73 0 56 19 295 86 12858	7 0 69 0 53 19 268 89 13757	22 0 72 <1 55 20 278 94 11680
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	4 0 73 0 56 19 295 86 12858 current	7 0 69 0 53 19 268 89 13757 history1	22 0 72 <1 55 20 278 94 11680 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50	4 0 73 0 56 19 295 86 12858 current 3	7 0 69 0 53 19 268 89 13757 history1 2	22 0 72 <1 55 20 278 94 11680 history2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50	4 0 73 0 56 19 295 86 12858 current 3 0	7 0 69 0 53 19 268 89 13757 history1 2 <1	22 0 72 <1 55 20 278 94 11680 history2 2 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50 >20	4 0 73 0 56 19 295 86 12858 current 3 0 1	7 0 69 0 53 19 268 89 13757 history1 2 2 <1 0	22 0 72 <1 55 20 278 94 11680 history2 2 1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20	4 0 73 0 56 19 295 86 12858 current 3 0 1	7 0 69 0 53 19 268 89 13757 history1 2 <1 0	22 0 72 <1 55 20 278 94 11680 history2 2 1 0 bistory2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20	4 0 73 0 56 19 295 86 12858 current 3 0 1 2 3 3 0 1 2 3 4512	7 0 69 0 53 19 268 89 13757 history1 2 <1 0 history1 49186	22 0 72 <1 55 20 278 94 11680 history2 2 1 0 history2 40745
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50 >20 imit/base >20	4 0 73 0 56 19 295 86 12858 current 3 0 1 current 34512 1898	7 0 69 0 53 19 268 89 13757 history1 2 <1 0 history1 49186 2386	22 0 72 <1 55 20 278 94 11680 history2 2 1 0 history2 40745 1848
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50 >20 imit/base >20	4 0 73 0 56 19 295 86 12858 current 3 0 1 current 34512 1898 61	7 0 69 0 53 19 268 89 13757 history1 2 <1 0 history1 49186 2386 39	22 0 72 <1 55 20 278 94 11680 history2 2 1 0 history2 40745 1848 41
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50 imit/base >50 imit/base >5000 >640 >160 >40	4 0 73 0 56 19 295 86 12858 current 3 0 1 2 3 4 5 1 2 3 4 5 12 8 8 6 1 9	7 0 69 0 53 19 268 89 13757 history1 2 <1 0 history1 49186 2386 39 7	22 0 72 <1 55 20 278 94 11680 history2 2 1 0 history2 40745 1848 41 8

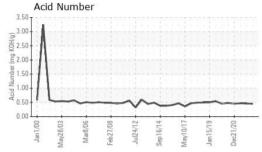


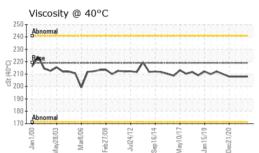
OIL ANALYSIS REPORT

Color

Bottom

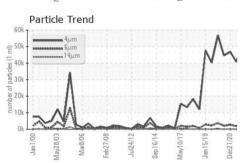


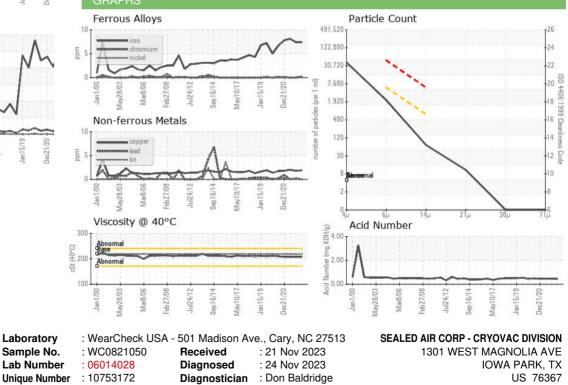




FLUID DEGRADA	TION	method				history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.45	0.46	0.47
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	219	208	208	208
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
			_			







Test Package : IND 2 (Additional Tests: PrtCount) 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)





Laboratory

Sample No.

Lab Number

Contact/Location: KEVIN KETCHERSID - CRYIOW