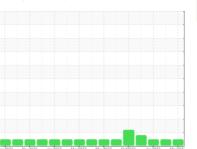


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



GUAY SON/Yavaros [CONHER] Machine Id CATERPILLAR Pacifico Ind Azteca MP

Component

Diesel Engine

CHEVRON DELO 400 MULTIGRADE 15W40 (160 LTR)

DIAGNOSIS

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 oil

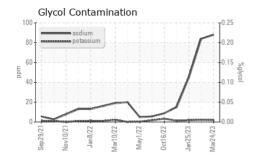
Fluid Condition

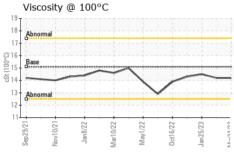
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

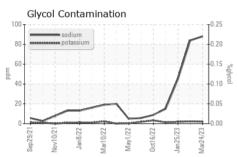
Client Info Q4 Mar 2023 22 Feb 2023 25 Jan 2023	Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 404 100 125	Machine Age hrs Client Info 404 100 125	Sample Number		Client Info		KL0010265	KL0010249	KL0010213
Oil Age hrs Client Info 404 100 125 Oil Changed Client Info Not Changd	Oil Age	Sample Date		Client Info		24 Mar 2023	22 Feb 2023	25 Jan 2023
Not Changed Not Changed Not Changed Nort Ch	Oil Changed Sample Status Not Changed NORMAL NORMAL NORMAL NORMAL	Machine Age	hrs	Client Info		0	0	0
NORMAL NORMAL NORMAL NORMAL	Sample Status	Oil Age	hrs	Client Info		404	100	125
CONTAMINATION	CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 27 16 11 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 2 2 2 1 Lead ppm ASTM D5185m >330 62 20 17 Tin ppm ASTM D5185m >15 <1 <1 <1 <th>Oil Changed</th> <th></th> <th>Client Info</th> <th></th> <th>Not Changd</th> <th>Not Changd</th> <th>Not Changd</th>	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Water	Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 27 16 11 Chromium ppm ASTM D5185m >20 <1	Water WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 27 16 11 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >2 <1 <1 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Lead ppm ASTM D5185m >40 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <th>CONTAMINATION</th> <th>١</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINATION	١	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 27 16 11 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >2 <0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 2 2 -1 Lead ppm ASTM D5185m >40 1 -1	WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 27 16 11 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >2 <1 <1 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 2 2 <1 Lead ppm ASTM D5185m >40 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <t< th=""><th>Fuel</th><th></th><th>WC Method</th><th>>5</th><th><1.0</th><th><1.0</th><th><1.0</th></t<>	Fuel		WC Method	>5	<1.0	<1.0	<1.0
	Iron	Water		WC Method	>0.2	NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1	Chromium ppm ASTM D5185m >20 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Nickel	Iron	ppm	ASTM D5185m	>100	27	16	11
Titanium	Titanium	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver	Silver	Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Alluminum	Aluminum ppm ASTM D5185m >25 2 2 <1	Titanium	ppm	ASTM D5185m	>2	0	0	0
Lead	Lead	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >330 62 20 17 Tin ppm ASTM D5185m >15 <1 <1 <1 Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 224 239 386 Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m <1 <1 <1 <1 Magnesium ppm ASTM D5185m 518 473 471 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm <th>Copper ppm ASTM D5185m >330 62 20 17 Tin ppm ASTM D5185m >15 <1 <1 <1 Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 224 239 386 Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m 518 473 471 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 187 Phosphorus ppm ASTM D5185m 1480 1069 1076 1064 Sulfur p</th> <th>Aluminum</th> <th>ppm</th> <th>ASTM D5185m</th> <th>>25</th> <th>2</th> <th></th> <th><1</th>	Copper ppm ASTM D5185m >330 62 20 17 Tin ppm ASTM D5185m >15 <1 <1 <1 Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 224 239 386 Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m 518 473 471 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 187 Phosphorus ppm ASTM D5185m 1480 1069 1076 1064 Sulfur p	Aluminum	ppm	ASTM D5185m	>25	2		<1
Tin	Tin ppm ASTM D5185m >15 <1	Lead	ppm	ASTM D5185m	>40	1	<1	<1
Vanadium ppm ASTM D5185m <1	Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>330	62	20	17
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 224 239 386 Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m <1 <1 <1 <1 Magnesium ppm ASTM D5185m 518 473 471 <1 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 <th>Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 224 239 386 Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m 41 <1 <1 <1 Magnesium ppm ASTM D5185m 518 473 471 <1 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2</th> <th>Tin</th> <th>ppm</th> <th>ASTM D5185m</th> <th>>15</th> <th><1</th> <th><1</th> <th><1</th>	Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 224 239 386 Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m 41 <1 <1 <1 Magnesium ppm ASTM D5185m 518 473 471 <1 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
ADDITIVES	ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	<1	0
Boron ppm ASTM D5185m 224 239 386	Boron ppm ASTM D5185m 224 239 386 Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m -1 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	Barium ppm ASTM D5185m 0 2 0 Molybdenum ppm ASTM D5185m 111 111 107 Manganese ppm ASTM D5185m <1 <1 <1 Magnesium ppm ASTM D5185m 518 473 471 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2882 NEG NEG NEG INFRA-RED meth							
Molybdenum ppm ASTM D5185m 111 111 111 107 Manganese ppm ASTM D5185m <1	Molybdenum ppm ASTM D5185m 111 111 107 Manganese ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Manganese ppm ASTM D5185m <1	Manganese ppm ASTM D5185m <1		ppm		limit/base		239	
Magnesium ppm ASTM D5185m 518 473 471 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol "ASTM D5185m >20 2 2 2 2 INFRA-RED method limit/base current history1 history2 Soot % "ASTM D7624 >3 0.5 0.2 0.1	Magnesium ppm ASTM D5185m 518 473 471 Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.4 8.3 6.5	Boron		ASTM D5185m	limit/base	224	239	386
Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >3 0.5 0.2 0.	Calcium ppm ASTM D5185m 1356 1371 1422 Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol "ASTM D5185m >20 2 2 2 2 INFRA-RED method limit/base current history1 history2 Soot % "ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/:mm "ASTM D7415 >30 23.0 21.9	Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	224 0	239	386 0
Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol *ASTM D5185m >20 2 2 2 2 Glycol *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7624 >3 0.5 0.2 0.1	Phosphorus ppm ASTM D5185m 1360 862 871 887 Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0	Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	224 0 111	239 2 111 <1	386 0 107 <1
Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 Glycol "ASTM D5185m >20 2 2 2 2 RINFRA-RED method limit/base current history1 history2 Soot % "ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm "ASTM D7624 >20 9.4 8.3 6.5	Zinc ppm ASTM D5185m 1480 1069 1076 1064 Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/.1mm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current	Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	224 0 111 <1 518	239 2 111 <1 473	386 0 107 <1 471
Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	Sulfur ppm ASTM D5185m 2885 2894 3066 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m >20 2 2 2 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/.mm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		224 0 111 <1 518 1356	239 2 111 <1 473 1371	386 0 107 <1 471 1422
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1360	224 0 111 <1 518 1356 862	239 2 111 <1 473 1371 871	386 0 107 <1 471 1422 887
Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	Silicon ppm ASTM D5185m >25 7 7 7 Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	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 ASTM D5185m ASTM D5185m	1360	224 0 111 <1 518 1356 862 1069	239 2 111 <1 473 1371 871 1076	386 0 107 <1 471 1422 887 1064
Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	Sodium ppm ASTM D5185m 88 84 45 Potassium ppm ASTM D5185m >20 2 2 2 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	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 ASTM D5185m ASTM D5185m	1360	224 0 111 <1 518 1356 862 1069	239 2 111 <1 473 1371 871 1076	386 0 107 <1 471 1422 887 1064
Potassium ppm ASTM D5185m >20 2 2 2 2 2 2 2 Q 2 Q Q NEG	Potassium ppm ASTM D5185m >20 2 3 3 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3	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 ASTM D5185m	1360 1480	224 0 111 <1 518 1356 862 1069 2885	239 2 111 <1 473 1371 871 1076 2894 history1	386 0 107 <1 471 1422 887 1064 3066 history2
Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1360 1480 limit/base	224 0 111 <1 518 1356 862 1069 2885 current	239 2 111 <1 473 1371 871 1076 2894 history1	386 0 107 <1 471 1422 887 1064 3066 history2
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1360 1480 limit/base >25	224 0 111 <1 518 1356 862 1069 2885 current	239 2 111 <1 473 1371 871 1076 2894 history1 7 84	386 0 107 <1 471 1422 887 1064 3066 history2 7 45
Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	Soot % % *ASTM D7844 >3 0.5 0.2 0.1 Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1360 1480 limit/base >25	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2	386 0 107 <1 471 1422 887 1064 3066 history2 7 45
Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5	Nitration Abs/cm *ASTM D7624 >20 9.4 8.3 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1360 1480 limit/base >25	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2	386 0 107 <1 471 1422 887 1064 3066 history2 7 45
	Sulfation Abs/.1mm *ASTM D7415 >30 23.0 21.9 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m ASTM D5185m	1360 1480 limit/base >25 >20	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2 NEG	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2 NEG	386 0 107 <1 471 1422 887 1064 3066 history2 7 45 2 NEG
Sulfation	FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2518.016.115.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844	1360 1480 limit/base >25 >20	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2 NEG	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2 NEG history1	386 0 107 <1 471 1422 887 1064 3066 history2 7 45 2 NEG history2
Junation Mailinin Matrial 11.3 20.0 23.0 21.3	Oxidation Abs/.1mm *ASTM D7414 >25 18.0 16.1 15.0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	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 **ASTM D7844 **ASTM D7844	1360 1480 limit/base >25 >20 limit/base >3	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2 NEG current	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2 NEG history1 0.2	386 0 107 <1 471 1422 887 1064 3066 history2 7 45 2 NEG history2
FLUID DEGRADATION method limit/base current history1 history2		Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	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 **ASTM D7844 **ASTM D7844	1360 1480 limit/base >25 >20 limit/base >3 >20	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2 NEG current 0.5 9.4	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2 NEG history1 0.2 8.3	386 0 107 <1 471 1422 887 1064 3066 history2 7 45 2 NEG history2 0.1 6.5
Oxidation	Base Number (BN) mg KOH/g ASTM D2896 12.2 7.7 8.7	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	1360 1480 limit/base >25 >20 limit/base >3 >20 >30	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2 NEG current 0.5 9.4 23.0	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2 NEG history1 0.2 8.3 21.9	386 0 107 <1 471 1422 887 1064 3066 history2 7 45 2 NEG history2 0.1 6.5 21.3
Oxidation AUS. IIIIII AUTIVID 1414 >25 10.0 10.1 10.0		Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7624 *ASTM D7624 *ASTM D7624 *ASTM D7415 *Method	1360 1480 limit/base >25 >20 limit/base >3 >20 >30 limit/base	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2 NEG current 0.5 9.4 23.0 current	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2 NEG history1 0.2 8.3 21.9 history1	386 0 107 <1 471 1422 887 1064 3066 history2 7 45 2 NEG history2 0.1 6.5 21.3
Oxidation MUST. IIIIII MOTIVI D1414 >20 10.0 10.1 10.1		Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7624 *ASTM D7624 *ASTM D7624 *ASTM D7415 *Method	1360 1480 limit/base >25 >20 limit/base >3 >20 >30 limit/base	224 0 111 <1 518 1356 862 1069 2885 current 7 88 2 NEG current 0.5 9.4 23.0 current	239 2 111 <1 473 1371 871 1076 2894 history1 7 84 2 NEG history1 0.2 8.3 21.9 history1	386 0 107 <1 471 1422 887 1064 3066 history2 7 45 2 NEG history2 0.1 6.5 21.3



OIL ANALYSIS REPORT



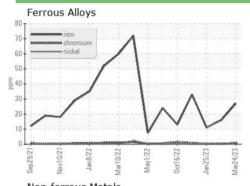


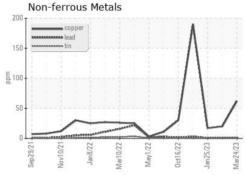


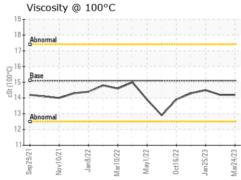
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

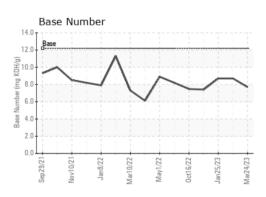
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	14.2	14.5

GRAPHS













Laboratory Sample No. Lab Number : 05806676 Unique Number : 10404205

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KL0010265

Received **Tested**

: 30 Mar 2023 : 02 Apr 2023 Diagnosed

: 02 Apr 2023 - Don Baldridge

JUAREZ 348 HERMOSILLO. MX 83140 Contact: EDUARDO GARCIA

Test Package: FLEET (Additional Tests: Glycol) To discuss this sample report, contact Customer Service at 1-800-237-1369.

egarcia.comsa@gmail.com

* - 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: (526)622-1581 x:81 F: x:

CONOR