

OIL ANALYSIS REPORT

Machine Id

CATAMARAN X4

Component Port Main Engine Fluid CHEVRON DELO 400 LE 15W40 (--- QTS)

DIAGNOSIS

A Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

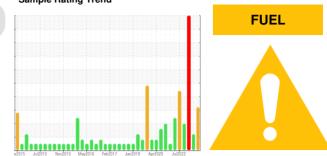
All component wear rates are normal.

Contamination

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

Fluid Condition

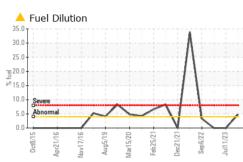
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity.

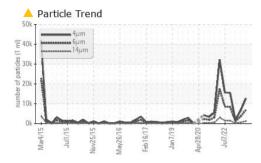


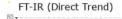
Sample NumberClient InfoKL0013495KL0012689KL0008921Sample DateIClient InfoI1 Jun 2024I1 Jul 2023I3 Dec 2022Machine AgehrsClient InfoIS8I8702I8702Oil AgehrsClient InfoZS8294S11Oil ChangedIClient InfoChangedChangedChangedSample StatusIIImil/bascurrenthistory1WaterWC Method0.1NEGNEGNEGGlycolIWC MethodNEGNEGNEGGlycolIWC MethodS755947175ChromiumppmASTM D515555747175NickelppmASTM D51555524146SilverppmASTM D51555524146SilverppmASTM D51555524146CopperppmASTM D51555524146LeadppmASTM D51555524146CopperppmASTM D51555524446CadmiumppmASTM D51555524446CopperppmASTM D5155552446CopperppmASTM D5155516222VanadiumppmASTM D5155552446CopperppmASTM D51555162	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine AgehrsClient Info11919187021870218702Oil AgehrsClient Info258294311Oil ChangedClient InfoChangedChangedChangedChangedSample StatusIImit AntTextTionSEVERECONTAMINATIOmetodimit/basecurrenthistory1MaterWC Method>0.0NEG0.00.0GlycolWC MethodNEGNEG0.010WEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5185m>2<1	Sample Number		Client Info		KL0013495	KL0012668	KL0008921
Oil Age hrs Client Info 258 294 311 Oil Changed Client Info Changed Changed Changed Changed Changed Sample Status Imathy Imathy Imathy ABNORMAL ATTENTION SeVERE CONTAMINATION method Imit/base current history1 history2 Water WC Method >0.1 NEG 0.0 0.10 WEAR METALS method limi/base current history1 history2 Iron ppm ASTM D5185m >75 59 47 175 Clirentium ppm ASTM D5185m >2 <1	Sample Date		Client Info		11 Jun 2024	11 Jul 2023	13 Dec 2022
Oil Changed Sample Status Client Info Changed AENORMAL Changed ATTENTION Changed SEVERE CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Glycol WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >75 59 47 175 Chromium ppm ASTM D5185m >8 1 2 11 Nickel ppm ASTM D5185m >2 0 0 0 Nickel ppm ASTM D5185m >15 2 4 60 Lead ppm ASTM D5185m >15 2 4 60 Lead ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 Cadmium ppm ASTM D5185m 10 0 0 ADDITIVES method limi/base current history1 history2 Manganese ppm ASTM D5185m	Machine Age	hrs	Client Info		11919	18702	18702
Sample Status Imathematical Status ABNORMAL ATTENTION SEVERE CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Glycol WC Method So nethod Imit/base current history1 history2 Iron ppm ASTM D5185m >75 59 47 175 Chromium ppm ASTM D5185m >2 <1	Oil Age	hrs	Client Info		258	294	311
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Glycol WC Method >0.1 NEG 0.0 0.10 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >75 59 47 175 Chromium ppm ASTM D5185m >2 <1	Oil Changed		Client Info		Changed	Changed	Changed
Water WC Method >0.1 NEG NEG NEG Glycol WC Method Imit/base current history1 history2 Iron ppm ASTM D5185m >75 59 47 175 Chromium ppm ASTM D5185m >2 <1	Sample Status				ABNORMAL	ATTENTION	SEVERE
Glycol WC Method NEG 0.0 ▲ 0.10 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >75 59 47 ▲ 175 Chromium ppm ASTM D5185m >2 <1	CONTAMINATION	I .	method	limit/base	current	history1	history2
WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >75 59 47 ▲ 175 Chromium ppm ASTM D5185m >8 1 2 ▲ 11 Nickel ppm ASTM D5185m >2 <1	Water		WC Method	>0.1	NEG	NEG	NEG
Iron ppm ASTM D5185m >75 59 47 ▲ 175 Chromium ppm ASTM D5185m >8 1 2 ▲ 11 Nickel ppm ASTM D5185m >2 <1 ▲ 8 Titanium ppm ASTM D5185m >2 <0 <1 <1 Silver ppm ASTM D5185m >2 0 <1 <1 Copper ppm ASTM D5185m >18 4 3 10 Copper ppm ASTM D5185m >18 41 3 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 2 Vanadium ppm ASTM D5185m <0 0 0 0 Cadmium ppm ASTM D5185m Imit/base current history1 history1 Barium	Glycol		WC Method		NEG	0.0	▲ 0.10
Chromium ppm ASTM D5185m >8 1 2 ▲ 11 Nickel ppm ASTM D5185m >2 <1 <1 ▲ 8 Titanium ppm ASTM D5185m >3 0 <1 <1 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >15 2 4 ▲ 60 Lead ppm ASTM D5185m >18 4 3 10 Copper ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m 0 0 <1 1 Cadmium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 1 2	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >2 <1 <1 ▲ 8 Titanium ppm ASTM D5185m >3 0 <1	Iron	ppm	ASTM D5185m	>75	59	47	1 75
Titanium ppm ASTM D5185m >3 0 <1 <1 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >15 2 4 ▲ 60 Lead ppm ASTM D5185m >18 4 3 10 Copper ppm ASTM D5185m >80 41 46 64 Tin ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >14 3 20 1	Chromium	ppm	ASTM D5185m	>8	1	2	1 1
SilverppmASTM D5185m>2000AluminumppmASTM D5185m>1524▲60LeadppmASTM D5185m>184310CopperppmASTM D5185m>80414664TinppmASTM D5185m>14322VanadiumppmASTM D5185m>14322CadmiumppmASTM D5185m>14322ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m201959BariumppmASTM D5185m201959MaganeseppmASTM D5185m201959MagnesiumppmASTM D5185m20112MagnesiumppmASTM D5185m1200718664548ZincppmASTM D5185m1200718664548ZincppmASTM D5185m3200307531623559CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>209910SodiumppmASTM D5185m>204104PotassiumppmASTM D5185m>204104SodiumppmASTM D5185m>20410<20	Nickel	ppm	ASTM D5185m	>2	<1	<1	▲ 8
Aluminum ppm ASTM D5185m >15 2 4 60 Lead ppm ASTM D5185m >18 4 3 10 Copper ppm ASTM D5185m >80 41 46 64 Tin ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m 0 <1	Titanium	ppm	ASTM D5185m	>3	0	<1	<1
Lead ppm ASTM D5185m >18 4 3 10 Copper ppm ASTM D5185m >80 41 46 64 Tin ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m 0 0 <11 <11 Cadmium ppm ASTM D5185m 0 0 0 <11 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 20 19 59 Barium ppm ASTM D5185m 20 19 59 Manganese ppm ASTM D5185m 4 <1 2 Magnesium ppm ASTM D5185m 1200 718 664 548 Zinc ppm ASTM D5185m 3200 3075 3162 3559 <	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >80 41 46 64 Tin ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m >10 0 <1	Aluminum	ppm	ASTM D5185m	>15	2	4	6 0
Tin ppm ASTM D5185m >14 3 2 2 Vanadium ppm ASTM D5185m 0 <1	Lead	ppm	ASTM D5185m	>18	4	3	10
Vanadium ppm ASTM D5185m 0 <1 <1 Cadmium ppm ASTM D5185m 0 0 <1	Copper	ppm	ASTM D5185m	>80	41	46	64
CadmiumppmASTM D5185m00<1ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m201959BariumppmASTM D5185m000MolybdenumppmASTM D5185m4<1	Tin	ppm	ASTM D5185m	>14	3	2	2
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m201959BariumppmASTM D5185m000MolybdenumppmASTM D5185m4<1	Vanadium	ppm	ASTM D5185m		0	<1	<1
Boron ppm ASTM D5185m 20 19 59 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 4 <1	Cadmium	ppm	ASTM D5185m		0	0	<1
Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 4 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 4 <1 2 Manganese ppm ASTM D5185m 2 1 2 Magnesium ppm ASTM D5185m 717 763 1373 Calcium ppm ASTM D5185m 1226 1360 1282 Phosphorus ppm ASTM D5185m 1200 718 664 548 Zinc ppm ASTM D5185m 1200 783 805 714 Sulfur ppm ASTM D5185m 3200 3075 3162 3559 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 4 10 250 Fuel % ASTM D3524 >4.0 4.8 <1.0	Boron	ppm	ASTM D5185m		20	19	59
Manganese ppm ASTM D5185m 2 1 2 Magnesium ppm ASTM D5185m 717 763 1373 Calcium ppm ASTM D5185m 717 763 1373 Calcium ppm ASTM D5185m 1226 1360 1282 Phosphorus ppm ASTM D5185m 1200 718 664 548 Zinc ppm ASTM D5185m 1300 783 805 714 Sulfur ppm ASTM D5185m 3200 3075 3162 3559 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 4 10 250 Fuel % ASTM D3524 >4.0 4.8 <1.0	Barium						
Magnesium ppm ASTM D5185m 717 763 1373 Calcium ppm ASTM D5185m 1226 1360 1282 Phosphorus ppm ASTM D5185m 1200 718 664 548 Zinc ppm ASTM D5185m 1200 783 805 714 Sulfur ppm ASTM D5185m 3200 3075 3162 3559 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Fuel % ASTM D5185m >20 4 10 250 Fuel % ASTM D5185m >20 4.8 <1.0	Dunum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 1226 1360 1282 Phosphorus ppm ASTM D5185m 1200 718 664 548 Zinc ppm ASTM D5185m 1300 783 805 714 Sulfur ppm ASTM D5185m 3200 3075 3162 3559 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 4 10 250 Fuel % ASTM D5185m >20 4 10 250 Fuel % ASTM D5185m >20 4.8 <1.0					-		
Phosphorus ppm ASTM D5185m 1200 718 664 548 Zinc ppm ASTM D5185m 1300 783 805 714 Sulfur ppm ASTM D5185m 3200 3075 3162 3559 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 160 4924 Potassium ppm ASTM D5185m >20 4 10 250 Fuel % ASTM D3524 >4.0 4.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >20 9.9 10.9 65.7	Molybdenum	ppm	ASTM D5185m		4	<1	2
Zinc ppm ASTM D5185m 1300 783 805 714 Sulfur ppm ASTM D5185m 3200 3075 3162 3559 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 160 4924 Potassium ppm ASTM D3524 >4.0 4.8 <1.0	Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		4 2	<1 1	2
Sulfur ppm ASTM D5185m 3200 3075 3162 3559 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >20 4 100 4924 Potassium ppm ASTM D5185m >20 4 10 250 Fuel % ASTM D3524 >4.0 4.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 1.9 2.2 4.8 Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		4 2 717	<1 1 763	2 2 1373
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>209910SodiumppmASTM D5185m>7571604924PotassiumppmASTM D5185m>20410250Fuel%ASTM D3524>4.04.8<1.0	Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200	4 2 717 1226	<1 1 763 1360	2 2 1373 1282
Silicon ppm ASTM D5185m >20 9 9 10 Sodium ppm ASTM D5185m >75 7 160 4924 Potassium ppm ASTM D5185m >20 4 10 ▲ 250 Fuel % ASTM D3524 >4.0 ▲ 4.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 1.9 2.2 4.8 Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		4 2 717 1226 718	<1 1 763 1360 664	2 2 1373 1282 548
Sodium ppm ASTM D5185m >75 7 160 4924 Potassium ppm ASTM D5185m >20 4 10 ▲ 250 Fuel % ASTM D5185 >4.0 ▲ 4.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 1.9 2.2 4.8 Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1300	4 2 717 1226 718 783	<1 1 763 1360 664 805	2 2 1373 1282 548 714
Potassium ppm ASTM D5185m >20 4 10 ▲ 250 Fuel % ASTM D3524 >4.0 ▲ 4.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 1.9 2.2 4.8 Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1300 3200	4 2 717 1226 718 783 3075	<1 1 763 1360 664 805 3162	2 2 1373 1282 548 714 3559
Fuel % ASTM D3524 >4.0 ▲ 4.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 1.9 2.2 4.8 Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1300 3200 limit/base >20	4 2 717 1226 718 783 3075 current 9	<1 1 763 1360 664 805 3162 history1 9	2 2 1373 1282 548 714 3559 history2 10
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 1.9 2.2 4.8 Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	1300 3200 limit/base >20 >75	4 2 717 1226 718 783 3075 current 9	<1 1 763 1360 664 805 3162 history1 9 160	2 2 1373 1282 548 714 3559 history2 10 4924
Soot % % *ASTM D7844 1.9 2.2 4.8 Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	1300 3200 limit/base >20 >75	4 2 717 1226 718 783 3075 <u>current</u> 9 7 4	<1 1 763 1360 664 805 3162 history1 9 160 10	2 2 1373 1282 548 714 3559 history2 10 4924 ▲ 250
Nitration Abs/cm *ASTM D7624 >20 9.9 10.9 65.7	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	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 D5185m ASTM D5185m	1300 3200 limit/base >20 >75 >20	4 2 717 1226 718 783 3075 <u>current</u> 9 7 4	<1 1 763 1360 664 805 3162 history1 9 160 10	2 2 1373 1282 548 714 3559 history2 10 4924 ▲ 250
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1300 3200 limit/base >20 >75 >20 >4.0	4 2 717 1226 718 783 3075 current 9 7 4 4 ▲ 4.8	<1 1 763 1360 664 805 3162 history1 9 160 10 <1.0	2 2 1373 1282 548 714 3559 history2 10 4924 ▲ 250 <1.0
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D3524	1300 3200 limit/base >20 >75 >20 >4.0	4 2 717 1226 718 783 3075 <u>current</u> 9 7 4 4 ▲ 4.8 <u>current</u>	<1 1 763 1360 664 805 3162 history1 9 160 10 <1.0 history1	2 2 1373 1282 548 714 3559 history2 10 4924 ▲ 250 <1.0 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m ASTM D3524	1300 3200 limit/base >20 >75 >20 >4.0 limit/base	4 2 717 1226 718 783 3075 <u>current</u> 9 7 4 4 ▲ 4.8 <u>current</u> 1.9	<1 1 763 1360 664 805 3162 history1 9 160 10 <1.0 history1 2.2	2 2 1373 1282 548 714 3559 history2 10 4924 ↓ 250 <1.0 history2 4.8

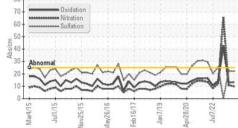


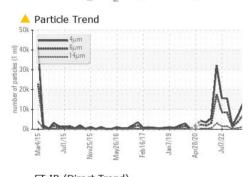
OIL ANALYSIS REPORT

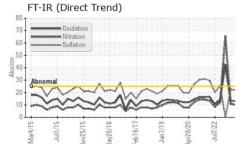






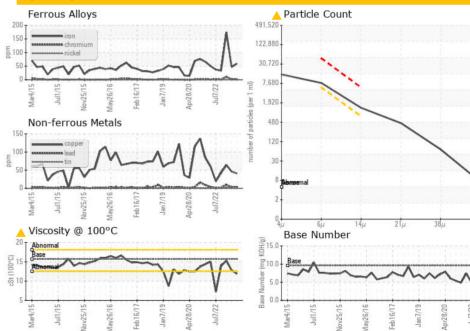






FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		12675	6568	1860
Particles >6µm		ASTM D7647	>5000	6905	3578	1013
Particles >14µm		ASTM D7647	>640	1175	609	172
Particles >21µm		ASTM D7647	>160	<mark>人</mark> 396	205	58
Particles >38µm		ASTM D7647	>40	61	32	9
Particles >71µm		ASTM D7647	>10	6	3	1
Oil Cleanliness		ISO 4406 (c)	>19/16	20/17	19/16	17/15
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	13.0	42.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	5.7	8.29	6.84
VISUAL		method	limit/base	a constant.	biotomit	history2
VISUAL		methou	IIIIII/Dase	current	history1	TIIStory2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	scalar scalar					
White Metal		*Visual	NONE	NONE	NONE	NONE
White Metal Yellow Metal	scalar	*Visual *Visual	NONE NONE	NONE NONE	NONE	NONE NONE
White Metal Yellow Metal Precipitate	scalar scalar	*Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE
White Metal Yellow Metal Precipitate Silt	scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NONE NONE	NONE NONE NONE NONE	NONE NONE NONE NONE	NONE NONE NONE NONE
White Metal Yellow Metal Precipitate Silt Debris	scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE	NONE NONE NONE NONE NONE	NONE NONE NONE NONE	NONE NONE NONE NONE
White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE	NONE NONE NONE NONE NONE
White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE NORE	NONE NONE NONE NONE NONE NONE NORML	NONE NONE NONE NONE NONE NORML	NONE NONE NONE NONE NONE NORML
White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML
White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar scalar scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML NEG	NONE NONE NONE NONE NONE NORML NORML NEG	NONE NONE NONE NONE NONE NORML NORML NEG







Report Id: EXPLAH [WUSCAR] 06212754 (Generated: 06/20/2024 17:56:38) Rev: 1

Submitted By: BILL CALDWELL

Page 2 of 2

20 8

4406

1999

Cle

14

12 6