

OIL ANALYSIS REPORT

Area A-L-L ADVANTAGE PLUS Machine Id 87401 - PRECISION ALUMINUM Component

Compressor

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

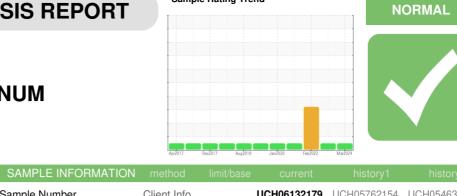
All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

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



Sample Rating Trend

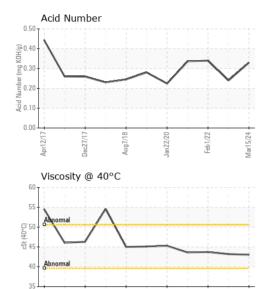
Sample Date Client Info 15 Mar 2024 26 Jan 2023 01 Feb 2022 Machine Age hrs Client Info 21330 21247 21123 Oil Age hrs Client Info 207 0 300 Oil Changed Client Info Changed NORMAL NORMAL ABNORMAL Sample Status nethod limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Iron ppm ASTM D5185m >50 <1 0 <1 Iron ppm ASTM D5185m >0 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >50 <1 0 1 Lead ppm ASTM D5185m >50 <1 0 0 Antim	SAMPLE INFORM		methoa	iinii/base	current	riistory i	riistoryz
Machine Age hrs Client Info 21330 21247 21123 Oil Age hrs Client Info 207 0 300 Oil Changed Client Info Changed Not Changed Changed Sample Status Client Info Changed NorMAL ABNORMAL CONTAMINATION method Imit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Water WC Method >0.1 NEG NEG NeG Water WC Method >0.1 0 0 0 Nickel ppm ASTM D5185m >50 <1 0 0 Silver ppm ASTM D5185m 225 0 0 0 1 Lead ppm ASTM D5185m >50 <1 0 -1 Tin ppm ASTM D5185m >50 <1 0 0 Copper ppm ASTM D5185	Sample Number		Client Info		UCH06132179	UCH05762154	UCH05463673
Oil Age hrs Client Info 207 0 300 Oil Changed Client Info Changed Not Changed Changed Sample Status Imit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG Wear ppm ASTM D5185m >50 <1 0 <1 Chromium ppm ASTM D5185m 0 0 0 0 Nickel ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m 0	Sample Date		Client Info		15 Mar 2024	26 Jan 2023	01 Feb 2022
Oil Changed Sample Status Client Info Changed NORMAL Not Changed NORMAL Changed ABNORMAL CONTAMINATION method imit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >50 <1	Machine Age	hrs	Client Info		21330	21247	21123
Sample Status NORMAL NORMAL NORMAL ABNORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 <1 0 <1 Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m >10 0 0 0 Silver ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m 0 0 <1 <1 Antimony ppm ASTM D5185m 0 0 0 0 V	Oil Age	hrs	Client Info		207	0	300
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM05185m >50 <1 0 <1 Chromium ppm ASTM05185m >50 <1 0 0 0 Nickel ppm ASTM05185m 0 0 0 0 0 Aluminum ppm ASTM05185m >25 0 0 0 0 Aluminum ppm ASTM05185m >25 0 0 0 0 Auminum ppm ASTM05185m >50 <1 0 <1 0 Auminum ppm ASTM05185m >50 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oil Changed		Client Info		Changed	Not Changd	Changed
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 <1 0 <1 Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 25 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >50 <1 0 <1 Vanadium ppm ASTM D5185m >15 0 0 <0 Cadmium ppm ASTM D5185m 0 0 0 0 Astm D5185m 0 0 0 0 0 0 <t< th=""><th>Sample Status</th><th></th><th></th><th></th><th>NORMAL</th><th>NORMAL</th><th>ABNORMAL</th></t<>	Sample Status				NORMAL	NORMAL	ABNORMAL
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 <1 0 <1 Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 25 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >50 <1 0 <1 Vanadium ppm ASTM D5185m >15 0 0 <0 Cadmium ppm ASTM D5185m 0 0 0 0 Astm D5185m 0 0 0 0 0 0 <t< th=""><th>CONTAMINATIO</th><th>N</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	CONTAMINATIO	N	method	limit/base	current	history1	history2
Iron ppm ASTM D5185m >50 <1	Water		WC Method	>0.1	NEG	NEG	
Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m 25 0 0 -1 Lead ppm ASTM D5185m >25 0 0 -1 Lead ppm ASTM D5185m >25 0 0 -1 Lead ppm ASTM D5185m >50 <1 0 <1 Copper ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >10 0 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 -1 Lead ppm ASTM D5185m >25 0 0 -1 Lead ppm ASTM D5185m >25 0 0 -1 Lead ppm ASTM D5185m >50 <1 0 <1 -1 Astmony ppm ASTM D5185m >50 <1 0 <1 0 Vanadium ppm ASTM D5185m 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Iron	ppm	ASTM D5185m	>50	<1	0	<1
Interview ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 0 Lead ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >50 <1 0 <1 Tin ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium	Chromium		ASTM D5185m	>10	0	0	0
Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >50 <1 0 <1 Copper ppm ASTM D5185m >50 <1 0 <1 Tin ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Marganese ppm ASTM D5185m 0 0 0 0	Nickel	ppm	ASTM D5185m		0	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >25 0 0 <1 Lead ppm ASTM D5185m >50 <1 0 <1 Copper ppm ASTM D5185m >50 <1 0 <1 Tin ppm ASTM D5185m >50 <1 0 <1 Antimony ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Marganese ppm ASTM D5185m 0 0 0 0 <tr< th=""><th>Titanium</th><th></th><th>ASTM D5185m</th><th></th><th>0</th><th>0</th><th>0</th></tr<>	Titanium		ASTM D5185m		0	0	0
Aluminum ppm ASTM D5185m >25 0 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >50 <1	Aluminum	ppm	ASTM D5185m	>25	0	0	<1
Tin ppm ASTM D5185m >15 0 0 <1	Lead	ppm	ASTM D5185m	>25	0	0	0
AntimonyppmASTM D5185m0VanadiumppmASTM D5185m0000CadmiumppmASTM D5185m0000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m0000BariumppmASTM D5185m0000BariumppmASTM D5185m0000MolybdenumppmASTM D5185m0000MaganeseppmASTM D5185m0000MagnesiumppmASTM D5185m0000PhosphorusppmASTM D5185m229264301ZincppmASTM D5185m277239253CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m2211SodiumppmASTM D5185m2211PotassiumppmASTM D5185m2211PotassiumppmASTM D5185m2211PotassiumppmASTM D5185m2000FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Copper	ppm	ASTM D5185m	>50	<1	0	<1
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 229 264 301 Zinc ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>15	0	0	<1
CadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m000BariumppmASTM D5185m1400MolybdenumppmASTM D5185m000ManganeseppmASTM D5185m000MagnesiumppmASTM D5185m000CalciumppmASTM D5185m000PhosphorusppmASTM D5185m000PhosphorusppmASTM D5185m229264301ZincppmASTM D5185m277239253CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m2211PotassiumppmASTM D5185m2200PotassiumppmASTM D5185m2000FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Antimony	ppm	ASTM D5185m				0
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m000BariumppmASTM D5185m1400MolybdenumppmASTM D5185m000ManganeseppmASTM D5185m000MagnesiumppmASTM D5185m000CalciumppmASTM D5185m000PhosphorusppmASTM D5185m229264301ZincppmASTM D5185m277239253CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25211PotassiumppmASTM D5185m>20000FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 14 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 Calcium ppm ASTM D5185m 0 0 0 Phosphorus ppm ASTM D5185m 0 -<1 4 Sulfur ppm ASTM D5185m 277 239 253 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m<>25 2 1 1 Sodium ppm ASTM D5185m 20 0 0 Potassium ppm ASTM D5185m 20 0 0 0 <th>Cadmium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>0</th> <th>0</th>	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 14 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 229 264 301 21 Zinc ppm ASTM D5185m 277 239 253 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m<>225 2 1 1 0 Sodium ppm ASTM D5185m >20 0 0 0 Potassium ppm ASTM D5185m >20 0 0 0 </th <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 229 264 301 Zinc ppm ASTM D5185m 229 264 301 Zinc ppm ASTM D5185m 0 <1 4 Sulfur ppm ASTM D5185m 2777 239 253 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >20 0 0 0 Potassium ppm ASTM D5185m >20 0 0 0	Boron	ppm	ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 229 264 301 Zinc ppm ASTM D5185m 0 <1 4 Sulfur ppm ASTM D5185m 2777 239 253 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m >20 0 0 0 Potassium ppm ASTM D5185m >20 0 0 0	Barium	ppm	ASTM D5185m		14	0	0
Magnesium ppm ASTM D5185m 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Phosphorus ppm ASTM D5185m 0 0 0 0 Zinc ppm ASTM D5185m 229 264 301 Zinc ppm ASTM D5185m 0 <1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 0 0 0 Phosphorus ppm ASTM D5185m 229 264 301 Zinc ppm ASTM D5185m 0 <1 4 Sulfur ppm ASTM D5185m 277 239 253 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m<>25 2 1 1 0 0 Potassium ppm ASTM D5185m >25 2 1 0 0 FLUID DEGRADATION method limit/base current history1 history2	Manganese	ppm	ASTM D5185m		0	0	0
Phosphorus ppm ASTM D5185m 229 264 301 Zinc ppm ASTM D5185m 0 <1	Magnesium	ppm	ASTM D5185m		0	0	0
ZincppmASTM D5185m0<1	Calcium	ppm	ASTM D5185m		0	0	0
SulfurppmASTM D5185m277239253CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25211SodiumppmASTM D5185m100PotassiumppmASTM D5185m>20000FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Phosphorus	ppm	ASTM D5185m		229	264	301
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m<>25211SodiumppmASTM D5185m100PotassiumppmASTM D5185m<>20000FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Zinc	ppm	ASTM D5185m		0	<1	4
Silicon ppm ASTM D5185m >25 2 1 1 Sodium ppm ASTM D5185m 1 0 0 Potassium ppm ASTM D5185m >20 0 0 0 FLUID DEGRADATION method limit/base current history1 history2	Sulfur	ppm	ASTM D5185m		277	239	253
Sodium ppm ASTM D5185m 1 0 0 Potassium ppm ASTM D5185m >20 0 0 0 FLUID DEGRADATION method limit/base current history1 history2	CONTAMINANTS	5	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 0 0 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>25	2	1	1
FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		1	0	0
	Potassium	ppm	ASTM D5185m	>20	0	0	0
Acid Number (AN) mg KOH/g ASTM D8045 0.33 0.24 0.34	FLUID DEGRADA		method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.33	0.24	0.34



Apr12/17

Dec27/17

OIL ANALYSIS REPORT



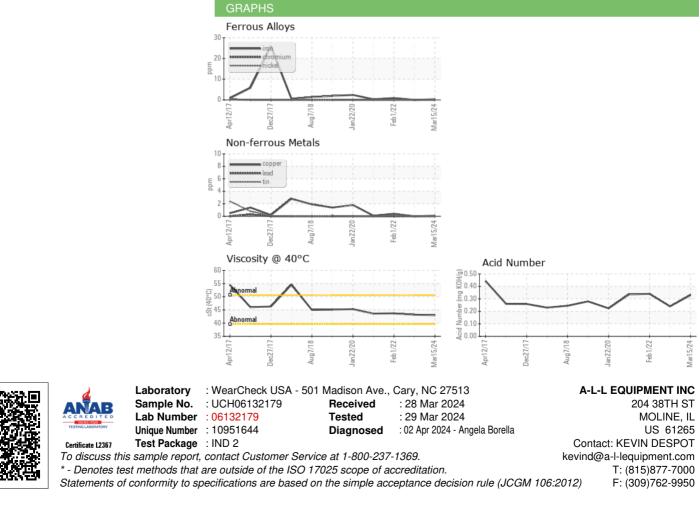
Aug7/18

lan22/20

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	LIGHT
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	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	1 .0
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		43.0	43.2	43.7
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color						
				and the second second		

Feb1/22

Mar15/24



Contact/Location: KEVIN DESPOT - UCALLMOL