

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

RECO TYSBER SWING-1 (S/N GDSH193L0083Q)

Refrigeration Compressor

USPI ALT-68 SC (50 GAL)

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 component. The amount and size of particulates present in the system is acceptable.

Fluid Condition

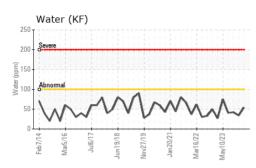
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

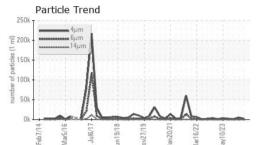
Sample Date Client Info 09 Apr 2024 17 Jan 2024 25 Oct 2023 Machine Age hrs Client Info 19231 18598 19847 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Client Info NORMAL NORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >8 0 0 0 Nickel ppm ASTM D5185m >2 <1			limit/base	method	IATION	
Machine Age hrs Client Info 19231 18598 19847 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A Sample Status Imit/base current history1 history2 Iron ppm ASTM D5185m >8 0 0 0 Chromium ppm ASTM D5185m >2 <1 <1 <1 Nickel ppm ASTM D5185m >2 <1 <1 <1 Nickel ppm ASTM D5185m >2 <1 0 0 Silver ppm ASTM D5185m >2 <1 0 0 Aluminum ppm ASTM D5185m >3 1 0 <1 0 0 Copper ppm ASTM D5185m >3 1 <1 <1 <1 0 0 0 0 0 0 0 0 0 <t< th=""><th>USP0005551</th><th>USP0006410</th><th></th><th>Client Info</th><th></th><th>Sample Number</th></t<>	USP0005551	USP0006410		Client Info		Sample Number
Oil AgehrsClient Info000Oil ChangedClient InfoN/AN/AN/ASample StatusImit/baseNORMALNORMALNORMALWEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5185m>8000ChromiumppmASTM D5185m>2<1<1<1NickelppmASTM D5185m0000TitaniumppmASTM D5185m<1000SilverppmASTM D5185m>2<100AluminumppmASTM D5185m>2<100LeadppmASTM D5185m>2000CopperppmASTM D5185m>310<1TinppmASTM D5185m>4<100VanadiumppmASTM D5185m<1000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m0000MagneseppmASTM D5185m0000MagnesiumppmASTM D5185m<1<100MagnesiumppmASTM D5185m<1<100MagnesiumppmASTM D5185m<0000MagnesiumppmASTM D5185m<1<1<	17 Jan 2024	09 Apr 2024		Client Info		Sample Date
Oli ChangedClient InfoN/AN/AN/AN/ASample StatusImage of the statusImage of the statusImage of the statusNORMALNORMALNORMALWEAR METALSnethodlimit/basecurrenthistory1history2IronppmASTM D5185m>8000ChromiumppmASTM D5185m>2<1<1<1NickelppmASTM D5185m0000TitaniumppmASTM D5185m>2<100SilverppmASTM D5185m>2<100AluminumppmASTM D5185m>2000LeadppmASTM D5185m>2000CopperppmASTM D5185m>2000VanadiumppmASTM D5185m>4<100CadmiumppmASTM D5185m<4<100ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m0000BariumppmASTM D5185m0000MolybdenumppmASTM D5185m0000MagnesiumppmASTM D5185m<1<100MagnesiumppmASTM D5185m<1<100MagnesiumppmASTM D5185m<1<10 </th <th>18598</th> <th>19231</th> <th></th> <th>Client Info</th> <th>hrs</th> <th>Machine Age</th>	18598	19231		Client Info	hrs	Machine Age
Sample StatusNORMALNORMALNORMALNORMALWEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5185m>8000ChromiumppmASTM D5185m>2<1<1<1NickelppmASTM D5185m0000TitaniumppmASTM D5185m<1000SilverppmASTM D5185m>2<100AluminumppmASTM D5185m>2<100LeadppmASTM D5185m>2000CopperppmASTM D5185m>2000VanadiumppmASTM D5185m>4<100VanadiumppmASTM D5185m<4<100ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m0000BariumppmASTM D5185m0000MagneseppmASTM D5185m0000MagnesiumppmASTM D5185m<1<10MagnesiumppmASTM D5185m<1<10MagnesiumppmASTM D5185m<1<10MolybdenumppmASTM D5185m<1<10MagnesiumppmASTM D5185m<1<10 </th <th>0</th> <th>0</th> <th></th> <th>Client Info</th> <th>hrs</th> <th>Oil Age</th>	0	0		Client Info	hrs	Oil Age
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >8 0 0 0 Chromium ppm ASTM D5185m >2 <1 <1 <1 Nickel ppm ASTM D5185m 0 0 0 0 Titanium ppm ASTM D5185m <2 <1 0 0 Silver ppm ASTM D5185m >2 <1 0 <1 Lead ppm ASTM D5185m >2 <1 0 <1 Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >2 0 0 0 Vanadium ppm ASTM D5185m >4 <1 0 0 Cadmium ppm ASTM D5185m <4 <1 0 0 Boron ppm ASTM D5185m 0 0 0 0	N/A	N/A		Client Info		Oil Changed
Iron ppm ASTM D5185m >8 0 0 0 Chromium ppm ASTM D5185m >2 <1 <1 <1 Nickel ppm ASTM D5185m 0 0 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >2 <1 0 0 Aluminum ppm ASTM D5185m >2 <1 0 0 Aluminum ppm ASTM D5185m >2 <1 0 0 Lead ppm ASTM D5185m >3 1 0 <1 Lead ppm ASTM D5185m >8 <1 <1 <1 <1 Tin ppm ASTM D5185m >4 <1 0 0 0 Cadmium ppm ASTM D5185m <1 0 0 0 Boron ppm ASTM D5185m 0 0	NORMAL	NORMAL				Sample Status
Chromium ppm ASTM D5185m >2 <1	history1	current	limit/base	method		WEAR METALS
Chromium ppm ASTM D5185m >2 <1	0	0	>8	ASTM D5185m	ppm	Iron
Nickel ppm ASTM D5185m 0 0 0 Titanium ppm ASTM D5185m <1 0 0 Silver ppm ASTM D5185m >2 <1 0 0 Aluminum ppm ASTM D5185m >2 <1 0 <1 Lead ppm ASTM D5185m >3 1 0 <1 Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >2 0 0 0 Vanadium ppm ASTM D5185m >4 <1 0 0 Cadmium ppm ASTM D5185m <4 <1 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 Mangane	<1	<1	>2	ASTM D5185m		Chromium
Titanium ppm ASTM D5185m <1	0	0		ASTM D5185m		Nickel
Silver ppm ASTM D5185m >2 <1	0	<1		ASTM D5185m		Titanium
Aluminum ppm ASTM D5185m >3 1 0 <1	0	<1	>2	ASTM D5185m		Silver
Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >8 <1	0	1	>3	ASTM D5185m		Aluminum
Copper ppm ASTM D5185m >8 <1	0	0				
Tin ppm ASTM D5185m >4 <1						
VanadiumppmASTM D5185m<1	0	<1				
CadmiumppmASTM D5185m<1						
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 1 0 Barium ppm ASTM D5185m 0 0 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 Phosphorus ppm ASTM D5185m 0 <1		<1				
Barium ppm ASTM D5185m 0 1 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m <1 <1 0 Calcium ppm ASTM D5185m <1 <1 0 Phosphorus ppm ASTM D5185m 0 <1 0	history1	current	limit/base	method		ADDITIVES
Barium ppm ASTM D5185m 0 1 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m <1 <1 0 Calcium ppm ASTM D5185m <1 <1 0 Phosphorus ppm ASTM D5185m 0 <1 0	0	0		ASTM D5185m	ppm	Boron
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 <1	1			ASTM D5185m		Barium
Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m <1	0	0		ASTM D5185m		Molybdenum
Magnesium ppm ASTM D5185m <1	0	0		ASTM D5185m		
Calcium ppm ASTM D5185m 0 <1	<1	<1		ASTM D5185m		Magnesium
Phosphorus ppm ASTM D5185m 0 0 0	<1	0		ASTM D5185m		Calcium
	0	0		ASTM D5185m		Phosphorus
		0		ASTM D5185m		
Sulfur ppm ASTM D5185m 50 0 0 0			50	ASTM D5185m		Sulfur
CONTAMINANTS method limit/base current history1 history2	history1	current	limit/base	method		CONTAMINANTS
Silicon ppm ASTM D5185m >15 4 3 3	3	4	>15	ASTM D5185m	ppm	Silicon
Sodium ppm ASTM D5185m 0 0 0	0	0		ASTM D5185m	ppm	Sodium
Potassium ppm ASTM D5185m >20 1 <1 2	<1	1	>20	ASTM D5185m	ppm	Potassium
Water % ASTM D6304 >0.01 0.005 0.003 0.004	0.003	0.005	>0.01	ASTM D6304	%	Water
ppm Water ppm ASTM D6304 >100 54 34 42.3	34	54	>100	ASTM D6304	ppm	ppm Water
FLUID CLEANLINESS method limit/base current history1 history2	history1	current	limit/base	method	IESS	FLUID CLEANLIN
Particles >4μm ASTM D7647 1628 4976 1468	4976	1628		ASTM D7647		Particles >4µm
Particles >6μm ASTM D7647 >2500 481 967 503	967	481	>2500	ASTM D7647		Particles >6µm
Particles >14μm ASTM D7647 >320 28 25 36	25	28	>320	ASTM D7647		Particles >14µm
Particles >21μm ASTM D7647 >80 4 5 9	5	4	>80	ASTM D7647		Particles >21µm
Particles >38μm ASTM D7647 >20 0 0 0	0	0	>20	ASTM D7647		Particles >38µm
Particles >71μm ASTM D7647 >4 0 0 0	0	0	>4	ASTM D7647		Particles >71µm
Oil Cleanliness ISO 4406 (c) >/18/15 18/16/12 19/17/12 18/16/12	19/17/12	18/16/12	>/18/15	ISO 4406 (c)		Oil Cleanliness
FLUID DEGRADATION method limit/base current history1 history2	history1	current	limit/base	method		FLUID DEGRADA
Acid Number (AN) mg KOH/g ASTM D974 0.005 0.014 0.014 0.014	0.014	0.014	0.005	ASTM D974	mg KOH/g	Acid Number (AN)

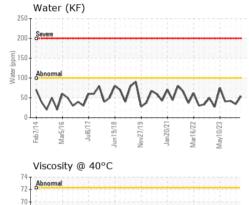
Contact/Location: MIKE CISCO - TYSBER01 Page 1 of 2

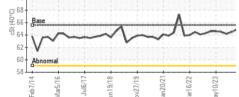


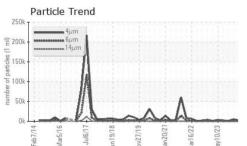
OIL ANALYSIS REPORT





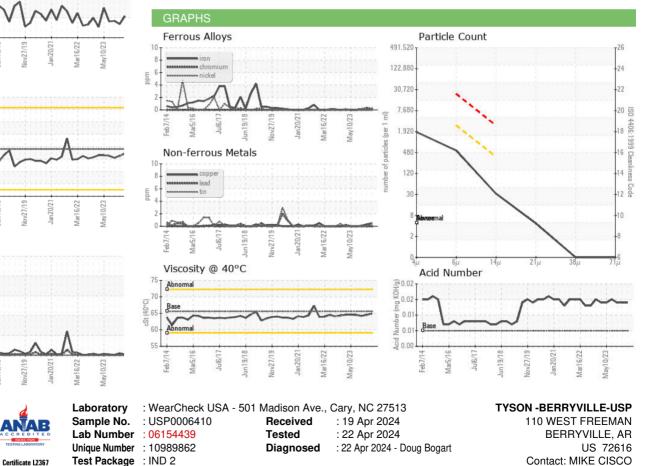






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VISUAL		method	limit/base	current	history1	history2
VISUAL		method	IIIIII/Dase	current	TIIStory I	TIIStOLYZ
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.01	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	65.6	64.9	64.5	64.2
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color						
				USA	1020	10



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)

T: (870)423-5556 F: (870)423-1602

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Page 2 of 2