

## **OIL ANALYSIS REPORT**

Sample Rating Trend

## NORMAL

Machine Id

# NORTH PLANT 502

Component Hydraulic System

JAX PREMIUM HYDRAULIC OIL ISO 32 (--- 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.

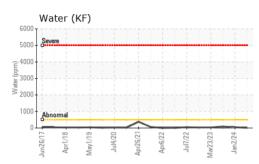
## Fluid Condition

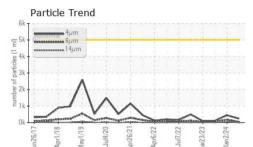
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

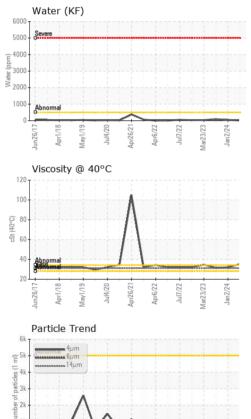
Sample Date         Client Info         20 Apr 2024         02 Jan 2024         19 Aug 2023           Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05155m         >20         2         3         2           Chromium         ppm         ASTM 05155m         >20         0         0         0           Nickel         ppm         ASTM 05155m         >20         1         2         0           Lead         ppm         ASTM 05155m         >20         1         2         0           Capper         ppm         ASTM 05155m         >20         1         0         0           Vanadium         ppm         ASTM 05155m         20         1         0         0           Capper         ppm         ASTM 05155m         20         1         0         0           Vanadium	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Sample Status         I         Imit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         2         3         2           Iron         ppm         ASTM D5185m         >20         0         0         0           Nickel         ppm         ASTM D5185m         >20         0         0         0           Silver         ppm         ASTM D5185m         >20         1         2         0           Cadmium         ppm         ASTM D5185m         >20         1         0         0           Cadmium         ppm         ASTM D5185m         20         1         0         0           Nola	Sample Number		Client Info		USP0006404	USP0004579	USP0000560
Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Sample Status         I         Imit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         2         3         2           Iron         ppm         ASTM D5185m         >20         0         0         0           Nickel         ppm         ASTM D5185m         >20         0         0         0           Silver         ppm         ASTM D5185m         >20         1         2         0           Cadmium         ppm         ASTM D5185m         >20         1         0         0           Cadmium         ppm         ASTM D5185m         20         1         0         0           Nola	Sample Date		Client Info		20 Apr 2024	02 Jan 2024	19 Aug 2023
Oli Changed         Client Info         N/A         N/A         N/A         N/A         N/A           Sample Status         method         imit/base         current         history1         history2           Iron         ppm         ASTN D5185m         >20         2         3         2           Chromium         ppm         ASTN D5185m         >20         <1         <1         0           Nickel         ppm         ASTN D5185m         >20         0         0         0           Silver         ppm         ASTN D5185m         >20         1         2         0           Lead         ppm         ASTN D5185m         >20         1         <1         0         0           Cadmium         ppm         ASTN D5185m         >20         <1         0         0         0           Cadmium         ppm         ASTN D5185m         >20         <1         0         0         0           Cadmium         ppm         ASTN D5185m         0         0         0         0         0           Barium         ppm         ASTN D5185m         0         0         0         0         0           Barium         pp	Machine Age	hrs	Client Info		0	0	0
Oli Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         Image of the status         Image of the status         Image of the status         N/A         <	Oil Age	hrs	Client Info		0	0	0
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         2         3         2           Chromium         ppm         ASTM D5185m         >20         0         0         0           Nickel         ppm         ASTM D5185m         >20         0         0         0           Silver         ppm         ASTM D5185m         <21         0         0         0           Lead         ppm         ASTM D5185m         >20         1         2         0           Lead         ppm         ASTM D5185m         >20         1         0         0           Vanadium         ppm         ASTM D5185m         >20         <1         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           Maganese         ppm         ASTM D5185m         0         0         0         0	Oil Changed		Client Info		N/A	N/A	N/A
Iron         ppm         ASTM D5185m         >20         2         3         2           Chromium         ppm         ASTM D5185m         >20         <1         <1         0           Nickel         ppm         ASTM D5185m         >20         0         0         0           Silver         ppm         ASTM D5185m         <1         0         0           Auminum         ppm         ASTM D5185m         >20         1         2         0           Lead         ppm         ASTM D5185m         >20         <1         <1         0         0           Copper         ppm         ASTM D5185m         >20         <1         0         0         0           Cadmium         ppm         ASTM D5185m         20         <1         0         0         0           ADDITIVES         method         imit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Maganese         ppm         ASTM D5185m         0         0         0         0           Maganeses         ppm         ASTM D5185m         6         5 </th <th>Sample Status</th> <th></th> <th></th> <th></th> <th>NORMAL</th> <th>NORMAL</th> <th>NORMAL</th>	Sample Status				NORMAL	NORMAL	NORMAL
Chromium         ppm         ASTM D5185m         >20         <1	WEAR METALS		method	limit/base	current	history1	history2
Chromium         ppm         ASTM D5185m         >20         <1	Iron	ppm	ASTM D5185m	>20	2	3	2
Nickel         ppm         ASTM D5185m         >20         0         0         0           Titanium         ppm         ASTM D5185m         <1         0         0           Silver         ppm         ASTM D5185m         <1         0         0           Aluminum         ppm         ASTM D5185m         >20         1         2         0           Lead         ppm         ASTM D5185m         >20         <1         0         0           Copper         ppm         ASTM D5185m         >20         <1         0         0           Cadmium         ppm         ASTM D5185m         >20         <1         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Calcium         ppm         ASTM D5185m         4         <1         <1         1           Phosphorus	Chromium		ASTM D5185m	>20	<1	<1	0
Titanium         ppm         ASTM D5185m         <1	Nickel		ASTM D5185m	>20	0	0	0
Silver         ppm         ASTM D5185m         <1	Titanium		ASTM D5185m		<1	0	0
Aluminum         ppm         ASTM D5185m         >20         1         2         0           Lead         ppm         ASTM D5185m         >20         <1         <1         0           Copper         ppm         ASTM D5185m         >20         <1         <1         0           Vanadium         ppm         ASTM D5185m         >20         <1         0         0           Cadmium         ppm         ASTM D5185m         <0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Maganese         ppm         ASTM D5185m         0         0         0         0           Maganesium         ppm         ASTM D5185m         4         101         88         21nc         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1					<1		
Lead         ppm         ASTM D5185m         >20         0         0         0           Copper         ppm         ASTM D5185m         >20         <1				>20			
Copper         ppm         ASTM D5185m         >20         <1							
Tin         ppm         ASTM D5185m         >20         <1							
Vanadium         ppm         ASTM D5185m         <1							
Cadmium         ppm         ASTM D5185m         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           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Manganese         ppm         ASTM D5185m         <1         0         1         1           Calcium         ppm         ASTM D5185m         <1         0         1         1           Calcium         ppm         ASTM D5185m         <4         <1         <1         1           Phosphorus         ppm         ASTM D5185m         <567         577         663           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >20         1         <1         0				>20			
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         0         0         0           Calcium         ppm         ASTM D5185m         4         <1         1           Phosphorus         ppm         ASTM D5185m         84         101         88           Zinc         ppm         ASTM D5185m         6         5         12           Sulfur         ppm         ASTM D5185m         567         577         663           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         22         2         1         0           Vater         %         ASTM D6180         0         0         0         0.004         0.008           ppm Water<							
Boron         ppm         ASTM D5185m         0         0         0         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         <1		ppm		limit/base			
Barium         ppm         ASTM D5185m         0         5         0           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Maganese         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         <1		maa		initia base			
Molybdenum         ppm         ASTM D5185m         0         0         0         0           Manganese         ppm         ASTM D5185m          1         0         1           Calcium         ppm         ASTM D5185m          4         <1							
Manganese         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         <1         0         1           Calcium         ppm         ASTM D5185m         4         <1         <1           Phosphorus         ppm         ASTM D5185m         84         101         88           Zinc         ppm         ASTM D5185m         6         5         12           Sulfur         ppm         ASTM D5185m         567         577         663           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >20         1         <1         0           Water         %         ASTM D5185m         >20         1         <1         0           Water         %         ASTM D6304         >0.05         0.001         0.004         0.008           ppm Water         ppm         ASTM D7647         >5000         242         445         104           Particles >4µm					-		
Magnesium         ppm         ASTM D5185m         <1	-						
Calcium         ppm         ASTM D5185m         4         <1	-				-		
Phosphorus         ppm         ASTM D5185m         84         101         88           Zinc         ppm         ASTM D5185m         6         5         12           Sulfur         ppm         ASTM D5185m         567         577         663           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >20         1         <1         0           Water         %         ASTM D6304         >0.05         0.001         0.004         0.008           ppm Water         ppm         ASTM D7647         >500         15         45         89.3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104	•						
Zinc         ppm         ASTM D5185m         6         5         12           Sulfur         ppm         ASTM D5185m         567         577         663           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >20         1         <1					-		
Sulfur         ppm         ASTM D5185m         567         577         663           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >0         0         0         0           Potassium         ppm         ASTM D5185m         >20         1         <1         0           Water         %         ASTM D6304         >0.05         0.001         0.004         0.008           ppm Water         ppm         ASTM D6304         >500         15         45         89.3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104           Particles >6µm         ASTM D7647         >1300         38         170         44           Particles >14µm         ASTM D7647         >10         0         1         0					-		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         >0         0         0         0           Potassium         ppm         ASTM D5185m         >20         1         <1         0           Water         %         ASTM D6304         >0.05         0.001         0.004         0.008           ppm Water         ppm         ASTM D6304         >500         15         45         89.3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104           Particles >6µm         ASTM D7647         >1300         38         170         44           Particles >14µm         ASTM D7647         >160         5         40         11           Particles >21µm         ASTM D7647         10         0         1         0					-		
Silicon         ppm         ASTM D5185m         >15         2         2         1           Sodium         ppm         ASTM D5185m         0         0         0         0           Potassium         ppm         ASTM D5185m         >20         1         <1         0           Water         %         ASTM D6304         >0.05         0.001         0.004         0.008           ppm Water         ppm         ASTM D6304         >500         15         45         89.3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104           Particles >6µm         ASTM D7647         >1300         38         170         44           Particles >14µm         ASTM D7647         >160         5         40         11           Particles >21µm         ASTM D7647         >40         1         12         3           Particles >38µm         ASTM D7647         >3         0         0         0           Particles >71µm         ASTM D7647         >3         0         0         0         0				limit/base			
Sodium         ppm         ASTM D5185m         0         0         0         0           Potassium         ppm         ASTM D5185m         >20         1         <1         0           Water         %         ASTM D6304         >0.05         0.001         0.004         0.008           ppm Water         ppm         ASTM D6304         >500         15         45         89.3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104           Particles >6µm         ASTM D7647         >1300         38         170         44           Particles >6µm         ASTM D7647         >160         5         40         11           Particles >14µm         ASTM D7647         >10         0         1         0           Particles >21µm         ASTM D7647         >3         0         0         0           Particles >71µm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11							
Potassium         ppm         ASTM D5185m         >20         1         <1							
Water         %         ASTM D6304         >0.05         0.001         0.004         0.008           ppm Water         ppm         ASTM D6304         >500         15         45         89.3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104           Particles >6µm         ASTM D7647         >1300         38         170         44           Particles >14µm         ASTM D7647         >160         5         40         11           Particles >21µm         ASTM D7647         >40         1         12         3           Particles >38µm         ASTM D7647         >10         0         1         0           Particles >71µm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2				>20	-		
ppm Water         ppm         ASTM D6304         >500         15         45         89.3           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104           Particles >6µm         ASTM D7647         >1300         38         170         44           Particles >6µm         ASTM D7647         >160         5         40         11           Particles >14µm         ASTM D7647         >40         1         12         3           Particles >21µm         ASTM D7647         >10         0         1         0           Particles >38µm         ASTM D7647         >3         0         0         0           Particles >71µm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2							
FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         242         445         104           Particles >6µm         ASTM D7647         >1300         38         170         44           Particles >6µm         ASTM D7647         >160         5         40         11           Particles >14µm         ASTM D7647         >40         1         12         3           Particles >21µm         ASTM D7647         >40         1         0         0           Particles >38µm         ASTM D7647         >10         0         1         0           Particles >38µm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2							
Particles >6μm         ASTM D7647         >1300         38         170         44           Particles >14μm         ASTM D7647         >160         5         40         11           Particles >21μm         ASTM D7647         >40         1         12         3           Particles >21μm         ASTM D7647         >40         1         0         1         0           Particles >38μm         ASTM D7647         >10         0         1         0         0           Particles >38μm         ASTM D7647         >3         0         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2	FLUID CLEANLIN		method	limit/base	current	history1	history2
Particles >14μm         ASTM D7647         >160         5         40         11           Particles >21μm         ASTM D7647         >40         1         12         3           Particles >38μm         ASTM D7647         >10         0         1         0           Particles >38μm         ASTM D7647         >3         0         0         0           Particles >71μm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2			ASTM D7647	>5000	242		
Particles >21µm         ASTM D7647         >40         1         12         3           Particles >38µm         ASTM D7647         >10         0         1         0           Particles >38µm         ASTM D7647         >3         0         0         0           Particles >71µm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >6µm		ASTM D7647	>1300	38	170	44
Particles >21µm         ASTM D7647         >40         1         12         3           Particles >38µm         ASTM D7647         >10         0         1         0           Particles >38µm         ASTM D7647         >3         0         0         0           Particles >71µm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >14µm		ASTM D7647	>160	5	40	11
Particles >38μm         ASTM D7647         >10         0         1         0           Particles >71μm         ASTM D7647         >3         0         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2			ASTM D7647	>40	1	12	3
Particles >71μm         ASTM D7647         >3         0         0         0           Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2				>10		1	0
Oil Cleanliness         ISO 4406 (c)         >19/17/14         15/12/10         16/15/12         14/13/11           FLUID DEGRADATION         method         limit/base         current         history1         history2				>3	0	0	0
	FLUID DEGRADA		method	limit/base	current	history1	history2
	Acid Number (AN)						



# **OIL ANALYSIS REPORT**



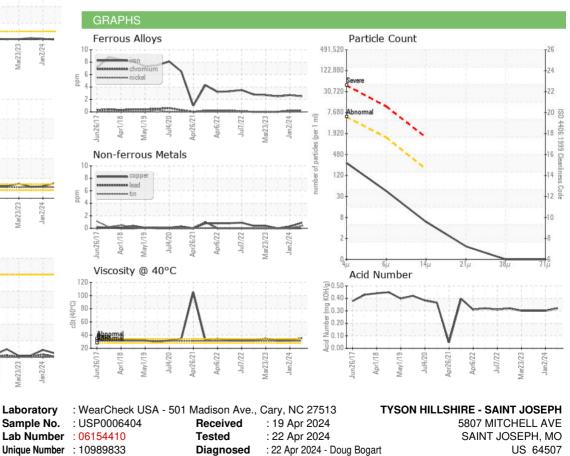




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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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	>0.05	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	31.1	35.3	32.0	31.5
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						· .

Bottom



Test Package : IND 2

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)

Certificate 12367

(ar)3/7

Contact/Location: ? ? - TYSSAI Page 2 of 2

Contact:

T:

F: