

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# NORTH PRESS

Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- GAL)

### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

#### Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PE0002656	PE0002641	PE0002640
Sample Date		Client Info		20 May 2024	17 Apr 2024	16 Apr 2024
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
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	I	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		17	19	15
Iron	ppm	ASTM D5185m	>20	4	1	1
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	2	2
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	3	2	2
Tin	ppm	ASTM D5185m	>20	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1 4	history2 5
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 5 5	current 0 0	history1 4 0	history2 5 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 5 5 5 5	current 0 0 ▲ 161	history1 4 0 186	history2 5 0 182
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 5 5 5	current 0 0 ▲ 161 0	history1 4 0 186 0	history2 5 0 182 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 5 5 5 25	current 0 0 ▲ 161 0 31	history1 4 0 186 0 0	history2 5 0 182 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 5 5 5 25 200	current 0 0 ▲ 161 0 31 35	history1 4 0 186 0 0 23	history2 5 0 182 0 0 0 45
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 5 5 5 5 2 5 2 5 2 5 2 0 0 300	Current 0 0 ▲ 161 0 31 35 529	history1 4 0 186 0 0 23 497	history2 5 0 182 0 0 45 507
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 5 5 5 5 2 2 0 0 3 0 0 3 7 0	Current 0 0 ▲ 161 0 31 35 529 526	history1 4 0 186 0 0 23 497 481	history2 5 0 182 0 0 45 507 489
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base 5 5 5 2 2 5 2 0 0 3 0 0 3 0 0 3 7 0 2 5 0 0	Current 0 0 161 0 31 35 529 526 1876	history1 4 0 186 0 0 23 497 481 1564	history2 5 0 182 0 0 45 507 489 1638
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 5 5 5 2 2 5 2 0 0 2 5 0 0 3 0 0 3 7 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 1 3 0 0 2 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	current 0 0 ▲ 161 0 31 35 529 526 1876 kurrent	history1         4         0         186         0         23         497         481         1564         history1	history2 5 0 182 0 0 45 507 489 1638 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	method           ASTM D5185m	limit/base 5 5 5 2 2 5 2 5 2 0 0 3 0 0 3 0 0 3 7 0 2 5 0 0 2 5 0 0 2 5 0 0 2 5 0 0 2 0 1 2 0 0 2 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5 2	current 0 0 161 0 31 35 529 526 1876 current 1	history1         4         0         186         0         23         497         481         1564	history2         5         0         182         0         45         507         489         1638         history2         7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm 1 ppm 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm 3 ppm 4 ppm 4	method           ASTM D5185m	limit/base 5 5 25 200 300 370 2500 2500 limit/base >15	current         0         0         161         0         31         35         529         526         1876         current         1         1         1	history1 4 0 186 0 0 23 497 481 1564 history1 ▲ 20 <1	history2 5 0 182 0 0 45 507 489 1638 history2 7 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Silicon Potassium	ppm 1 ppm 2 ppm 2	method           ASTM D5185m	limit/base 5 5 5 25 200 300 370 2500 2500 2500 2500 2500 2500	Current         0         0         0         161         0         31         35         529         526         1876         current         1         0         0	history1         4         0         186         0         23         497         481         1564         history1         ▲ 20         <1         0	history2         5         0         182         0         45         507         489         1638         history2         7         1         0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm 1 ppm 2 ppm 2	method           ASTM D5185m	limit/base 5 5 25 25 200 300 370 2500 2500 limit/base >20 limit/base	current         0         0         0         161         0         31         35         529         526         1876         current         1         0         0         current         0         current	history1 4 0 186 0 0 23 497 481 1564 1564 history1 20 <1 0 history1	history2         5         0         182         0         45         507         489         1638         history2         7         1         0         history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base 5 5 25 200 300 370 2500 2500 limit/base >20 limit/base >5000	current         0         0         0         31         35         529         526         1876         current         1         0         current         1         0         current         58191	A         0         186         0         23         497         481         1564    Astrony1          20         <1         0         1564	history2 5 0 182 0 0 45 507 489 1638 1638 1638 1638 1638 0 1638 0 1638 1638
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINI Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base 5 5 5 25 200 300 370 2500 2500 2500 >15 >20 limit/base >20 limit/base >5000 >1300	current         0         0         161         0         31         35         529         526         1876         current         1         0         current         1         0         current         58191         7471	A         0         186         0         23         497         481         1564    Astrony1          20         <10         0         1564	history2 5 0 182 0 0 45 507 489 1638 1638 1638 1638 0 1638 0 1638 0 1638 0 1638 0 1638 0 1638 0 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 1638 164
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base 5 5 5 200 300 370 2500 2500 2500 2500 215 20 100 25000 21300 2160	current         0         0         0         161         0         31         35         529         526         1876         current         1         0         current         1         0         current         58191         7471         100	A         0         186         0         23         497         481         1564         •         20         <1         0         •         1564	history2         5         0         182         0         45         507         489         1638         history2         7         1         0         history2         0         history2         1         0         history2         13         142
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D7647           ASTM D7647           ASTM D7647	limit/base 5 5 5 20 250 300 370 2500 15 >15 >20 limit/base >5000 >1300 >160 >40	current         0         0         0         161         0         31         35         529         526         1876         current         1         1         0         current         13	A         0         186         0         23         497         481         1564         •         20         <1         0         •         1564	<ul> <li>history2</li> <li>5</li> <li>0</li> <li>182</li> <li>0</li> <li>0</li> <li>45</li> <li>507</li> <li>489</li> <li>1638</li> <li>history2</li> <li>7</li> <li>1</li> <li>0</li> <li>history2</li> <li>history2</li> <li>68790</li> <li>8354</li> <li>142</li> <li>39</li> </ul>
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D7647           ASTM D7647           ASTM D7647           ASTM D7647	<pre>limit/base 5 5 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2</pre>	current         0         0         161         0         31         35         529         526         1876         current         1         1         0         current         1         1         0         current         1         1         0         current         1         1         0         current         13         13         1	A         0         186         0         23         497         481         1564         •         20         <1         0         •         1564	<ul> <li>history2</li> <li>5</li> <li>0</li> <li>182</li> <li>0</li> <li>0</li> <li>45</li> <li>507</li> <li>489</li> <li>1638</li> <li>history2</li> <li>7</li> <li>1</li> <li>0</li> <li>history2</li> <li>68790</li> <li>§354</li> <li>142</li> <li>39</li> <li>2</li> </ul>
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D7647           ASTM D7647           ASTM D7647           ASTM D7647           ASTM D7647           ASTM D7647	limit/base 5 5 200 250 200 300 370 2500 2500 15 >20 limit/base >5000 >1300 >160 >40 >10 >3	current         0         0         0         31         35         529         526         1876         current         1         1         0         current         13         100         13         1         0	A         0         186         0         23         497         481         1564         •         20         <1         0         •         1564	<ul> <li>history2</li> <li>5</li> <li>0</li> <li>182</li> <li>0</li> <li>0</li> <li>45</li> <li>507</li> <li>489</li> <li>1638</li> <li>history2</li> <li>7</li> <li>1</li> <li>0</li> <li>history2</li> <li>68790</li> <li>▲ 68790</li> <li>▲ 8354</li> <li>142</li> <li>39</li> <li>2</li> <li>0</li> </ul>



# **OIL ANALYSIS REPORT**







FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.52	0.59	0.60
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	46	44.9	46.1	46.1
SAMPLE IMAGES		method	limit/base	current	history1	history2

Color



Bottom





Lab Number : 06193855 Tested : 30 May 2024 SALEM, OR Unique Number : 11055978 Diagnosed : 30 May 2024 - Doug Bogart US 97305 Test Package : PLANT ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN ) Contact: Service Manager 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. T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: PRESAL [WUSCAR] 06193855 (Generated: 05/30/2024 16:17:47) Rev: 1

Certificate 12367

Laboratory

Sample No.

Contact/Location: Service Manager - PRESAL

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