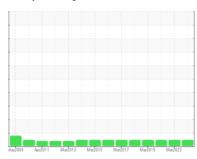


# **OIL ANALYSIS REPORT**

Sample Rating Trend



NORMAL



PIERCE TOWER-81

Component Hydraulic System

NOT GIVEN (--- GAL)

### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

## Contamination

There is no indication of any contamination in the oil

### Fluid Condition

The condition of the oil is acceptable for the time in service.

	Мау2004 Арг2011 Маг2013 Маг2015 Маг2017 Маг2019 Маг2023								
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2			
Sample Number		Client Info		WC0907002	WC0790368	WC0430578			
Sample Date		Client Info		05 Mar 2024	21 Mar 2023	22 Feb 2020			
Machine Age	hrs	Client Info		1429	0	1429			
Oil Age	hrs	Client Info		1429	0	0			
Oil Changed		Client Info		N/A	Not Changd	Not Changd			
Sample Status				NORMAL	NORMAL	NORMAL			
CONTAMINATIO	N	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	>20	4	3	3			
Chromium	ppm	ASTM D5185m	>10	1	<1	<1			
Nickel	ppm	ASTM D5185m	>10	<1	0	<1			
Titanium	ppm	ASTM D5185m		<1	0	0			
Silver	ppm	ASTM D5185m		<1	0	0			
Aluminum	ppm	ASTM D5185m	>10	2	<1	<1			
Lead	ppm	ASTM D5185m	>10	1	0	0			
Copper	ppm	ASTM D5185m	>75	32	5	5			
Tin	ppm	ASTM D5185m	>10	1	0	0			
Antimony	ppm	ASTM D5185m				0			
Vanadium	ppm	ASTM D5185m		<1	0	0			
Cadmium	ppm	ASTM D5185m		<1	<1	<1			
Cadmium  ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	<1 history1	<1 history2			
	ppm		limit/base						
ADDITIVES		method	limit/base	current	history1	history2			
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2 <1			
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m	limit/base	current 0 0	history1 0 0	history2 <1 0			
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 1	history1 0 0 <1	history2 <1 0 <1			
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 1 <1	history1  0 0 <1 <1	history2 <1 0 <1 <1 <1			
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 1 <1 3	history1  0 0 <1 <1 4	history2 <1 0 <1 <1 <1 2			
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 1 <1 3 130	history1  0 0 <1 <1 4 98	history2 <1 0 <1 <1 2 95			
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 0 0 1 <1 3 130 581	history1  0 0 <1 <1 4 98 407	history2 <1 0 <1 <1 2 95 371			
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 0 0 1 <1 3 130 581 916	history1  0 0 <1 <1 4 98 407 527	history2  <1 0 <1 <1 2 95 371 473			
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current 0 0 1 <1 3 130 581 916 7326	history1  0 0 <1 <1 4 98 407 527 5845	history2 <1 0 <1 <1 2 95 371 473 6064			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current  0  0  1  <1  3  130  581  916  7326  current	history1  0 0 <1 <1 4 98 407 527 5845 history1	history2  <1 0 <1 <1 2 95 371 473 6064 history2			
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20	current  0  0  1  <1  3  130  581  916  7326  current  7	history1  0 0 <1 <1 4 98 407 527 5845 history1 2	history2  <1 0 <1 <1 2 95 371 473 6064 history2 2			
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >20	current 0 0 1 <1 3 130 581 916 7326  current 7	history1  0 0 <1 <1 4 98 407 527 5845 history1 2 <1	history2 <1 0 <1 2 95 371 473 6064 history2 2 <1			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >20 >20	current 0 0 1 <1 3 130 581 916 7326  current 7 0 1	history1  0 0 <1 <1 4 98 407 527 5845 history1 2 <1 0	history2  <1 0 <1 <1 2 95 371 473 6064 history2 2 <1 0			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >20 >20 limit/base	current  0  0  1  <1  3  130  581  916  7326  current  7  0  1  current	history1  0  0 <1 <1 <1 4  98  407  527  5845  history1  2 <1 0 history1	history2  <1 0 <1 <1 2 95 371 473 6064  history2  2 <1 0 history2			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  *Visual	limit/base >20 >20 limit/base NONE	current  0  0  1 <1 3 130 581 916 7326 current  7 0 1 current NONE	history1  0  0 <1 <1 4 98 407 527 5845 history1 2 <1 0 history1 NONE	history2  <1 0 <1 2 95 371 473 6064 history2 2 <1 0 history2 NONE			
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  method  *Visual	limit/base >20 >20 limit/base NONE NONE	current  0  0  1 <1 3 130 581 916 7326  current  7  0 1  current  NONE  NONE	history1  0 0 <1 <1 4 98 407 527 5845 history1 2 <1 0 history1 NONE NONE	history2  <1 0 <1 2 95 371 473 6064 history2 2 <1 0 history2 NONE NONE			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  *Visual  *Visual	limit/base >20 >20 limit/base NONE NONE NONE	current  0  0  1 <1 3 130 581 916 7326  current  7  0 1  current  NONE  NONE  NONE	history1  0  0 <1 <1 4 98 407 527 5845 history1 2 <1 0 history1 NONE NONE NONE	history2  <1 0 <1 2 95 371 473 6064 history2 2 <1 0 history2 NONE NONE NONE			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm	method  ASTM D5185m  method  ASTM D5185m  *Visual  *Visual  *Visual	limit/base >20 >20 limit/base NONE NONE NONE	Current  0 0 1 <1 3 130 581 916 7326  Current 7 0 1  Current NONE NONE NONE	history1  0 0 <1 <1 4 98 407 527 5845 history1 2 <1 0 history1 NONE NONE NONE NONE	history2  <1 0 <1 2 95 371 473 6064 history2 2 <1 0 history2 NONE NONE NONE NONE			
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm	method  ASTM D5185m  METHOD  ASTM D5185m  METHOD  *Visual  *Visual  *Visual  *Visual  *Visual	limit/base >20 >20 limit/base NONE NONE NONE NONE NONE NONE	Current  0 0 1 <1 3 130 581 916 7326  Current 7 0 1  Current NONE NONE NONE NONE LIGHT	history1  0  0  <1 <1 4  98  407  527  5845  history1  2  <1 0  history1  NONE  NONE  NONE  NONE  NONE  NONE  NONE	history2  <1 0 <1 2 95 371 473 6064 history2 2 <1 0 history2 NONE NONE NONE NONE NONE NONE NONE			

NEG

NEG

>0.1

**Emulsified Water** 

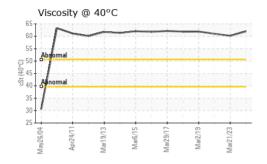
scalar \*Visual

scalar \*Visual

Supported By: RANDEYGPRICE

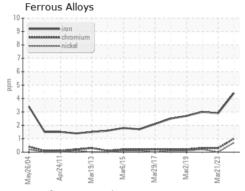


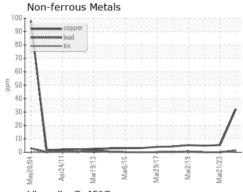
# **OIL ANALYSIS REPORT**

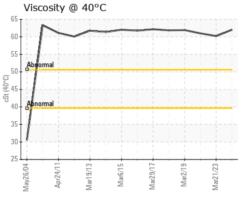


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		62.0	60.2	61.0
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image

## **GRAPHS**











Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0907002 Lab Number : 06139026

Unique Number : 10963834

Received : 04 Apr 2024 Tested : 05 Apr 2024

: 05 Apr 2024 - Wes Davis Diagnosed

**DELAND FIRE DEPARTMENT** 

201 WEST HOWAY AVE DELAND, FL

US 32720

Contact: DAN LAGRANGE lagranged@deland.org

Test Package : FLEET Certificate 12367 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)

Report Id: DELDELFL [WUSCAR] 06139026 (Generated: 04/05/2024 14:45:07) Rev: 1

Submitted By: RANDY PRICE

T:

F: