

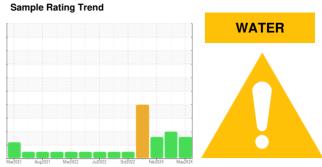
# **OIL ANALYSIS REPORT**

# [INJ #2]

# **ALMEDA INJECTION PUMP 2 820PM18022**

**Natural Gas Engine** 

**MOBIL PEGASUS 805 (--- GAL)** 



## DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is a trace of moisture present in the oil.

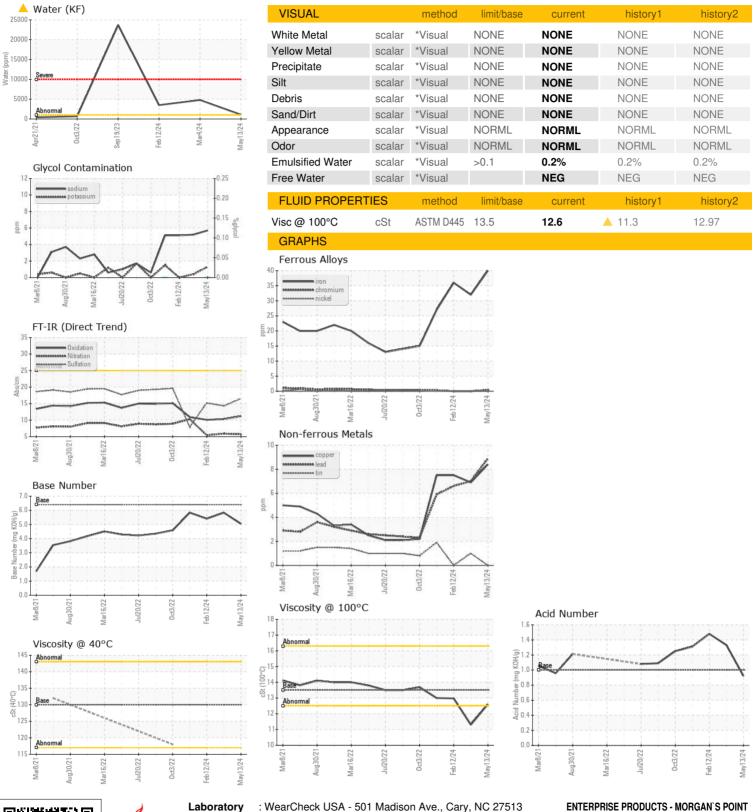
#### **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	NOITAN	method	limit/base	current	history1	history2
Sample Number		Client Info		RP0036512	RP0033545	RP0033548
Sample Date		Client Info		13 May 2024	04 Mar 2024	12 Feb 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Filtered	Filtered	Filtered
Sample Status				MARGINAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	40	32	36
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	2	2
Lead	ppm	ASTM D5185m	>30	9	7	7
Copper	ppm	ASTM D5185m		8	7	8
Tin	ppm	ASTM D5185m	>4	0	1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	80	0	11	11
Barium	ppm	ASTM D5185m		0	1	2
Molybdenum	ppm	ASTM D5185m		12	10	11
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		47	49	52
Calcium	ppm	ASTM D5185m	1020	1312	1097	1185
	ppm	ASTM D5185m	220	364	309	352
		ASTM D5185m ASTM D5185m	220 230	364 430	309 367	352 402
	ppm					402
Zinc CONTAMINANTS	ppm	ASTM D5185m	230	430	367	402 history2
Zinc CONTAMINANTS Silicon	ppm ppm	ASTM D5185m method	230 limit/base	430 current	367 history1	402 history2
Zinc  CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m  method  ASTM D5185m	230 limit/base	430  current 3	367 history1 3	402 history2
Zinc  CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	Method ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	230   limit/base	430	367 history1 3 5	402  history2  3  5  0  0.350
Zinc  CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	230   limit/base	430	367 history1 3 5 <1	402 history2 3 5 0
Zinc  CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm	Method ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	230   limit/base	430  current  3  6  1  0.107	367  history1  3  5  <1  △ 0.479	402  history2  3  5  0  0.350
Zinc  CONTAMINANTS Silicon Sodium Potassium Water opm Water	ppm ppm ppm ppm ppm ppm % ppm	Method ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	230   limit/base	430  current  3  6  1  0.107  1070	367  history1  3  5  <1  △ 0.479  △ 4790	402  history2  3  5  0  △ 0.350  △ 3500
Zinc  CONTAMINANTS Silicon Sodium Potassium Water ppm Water Glycol  INFRA-RED Soot %	ppm ppm ppm ppm % ppm %	Method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D2982  method *ASTM D7844	230  limit/base >+100  >20 >0.1 >1000  limit/base	430  current  3  6  1  ▲ 0.107  ▲ 1070  0.0  current  0	367  history1  3  5  <1  △ 0.479  △ 4790   history1  0.1	402  history2  3  5  0  ▲ 0.350  ▲ 3500   history2  0.1
Zinc  CONTAMINANTS Silicon Sodium Potassium Water ppm Water Glycol  INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm % ppm % Abs/cm	method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D6304 *ASTM D2982 method *ASTM D7844 *ASTM D7844	230  limit/base >+100  >20 >0.1 >1000  limit/base  >20	430  current  3  6  1  ▲ 0.107  ▲ 1070  0.0  current  0  5.7	367  history1  3  5  <1  △ 0.479  △ 4790   history1  0.1  5.9	402  history2  3  5  0  ▲ 0.350  ▲ 3500   history2  0.1  5.4
Zinc  CONTAMINANTS Silicon Sodium Potassium Water opm Water Glycol  INFRA-RED Soot % Nitration	ppm ppm ppm ppm % ppm %	Method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D2982  method *ASTM D7844	230  limit/base >+100  >20 >0.1 >1000  limit/base	430  current  3  6  1  ▲ 0.107  ▲ 1070  0.0  current  0	367  history1  3  5  <1  △ 0.479  △ 4790   history1  0.1	402  history2  3  5  0  ▲ 0.350  ▲ 3500   history2  0.1
Zinc  CONTAMINANTS Silicon Sodium Potassium Water ppm Water Glycol  INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm % ppm Abs/.1mm	method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D6304 *ASTM D2982 method *ASTM D7844 *ASTM D7844	230  limit/base >+100  >20 >0.1 >1000  limit/base  >20	430  current  3  6  1  ▲ 0.107  ▲ 1070  0.0  current  0  5.7	367  history1  3  5  <1  △ 0.479  △ 4790   history1  0.1  5.9	402  history2  3  5  0  ▲ 0.350  ▲ 3500   history2  0.1  5.4  15.2
Zinc  CONTAMINANTS Silicon Sodium Potassium Water ppm Water Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm % ppm Abs/.1mm	Method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D6304 *ASTM D2982 Method *ASTM D7844 *ASTM D7624 *ASTM D76145	230  limit/base >+100  >20 >0.1 >1000  limit/base  >20 >30	430  current  3 6 1  ▲ 0.107  ▲ 1070 0.0  current 0 5.7 16.5	367  history1  3  5  <1  △ 0.479  △ 4790   history1  0.1  5.9  14.3	402  history2  3  5  0  ▲ 0.350  ▲ 3500   history2  0.1  5.4
Silicon Sodium Potassium Water ppm Water Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm % ppm % ppm Abs/.1mm ppm Abs/.1mm	method ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *ASTM D6304 *ASTM D2982  method *ASTM D7844 *ASTM D7624 *ASTM D7615  method *ASTM D7415	230  limit/base >+100 >20 >0.1 >1000  limit/base >20 >30  limit/base	430  current  3  6  1  ▲ 0.107  ▲ 1070  0.0  current  0  5.7  16.5  current	367  history1  3  5  <1  △ 0.479  △ 4790   history1  0.1  5.9  14.3  history1	402  history2  3  5  0  △ 0.350  △ 3500   history2  0.1  5.4  15.2  history2



## OIL ANALYSIS REPORT







Certificate 12367

Report Id: ENTLAPTX [WUSCAR] 06201652 (Generated: 06/18/2024 14:59:56) Rev: 1

Sample No.

: RP0036512 Lab Number : 06201652 Unique Number : 11063775

Received **Tested** 

 $^st$  - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

: 06 Jun 2024 : 18 Jun 2024 Diagnosed

: 18 Jun 2024 - Jonathan Hester Test Package : IND 2 (Additional Tests: FT-IR, Glycol, KV100, TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

US 77571 Contact: LONNIE RAMIREZ LRamirez@eprod.com T: (713)575-4112

1200 N BROADWAY

LA PORTE, TX

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

Contact/Location: LONNIE RAMIREZ - ENTLAPTX