

## **PROBLEM SUMMARY**

## Sample Rating Trend

2019 Dec2019 Apr2020 Dec2020 Jun2021 Dec3020 Machine Machine

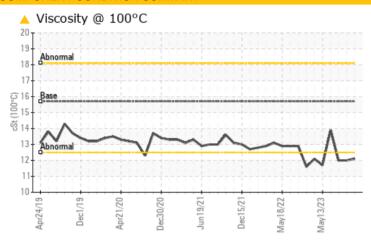
## VISCOSITY

# ERNA E HONEYCUTT [ERNA E HONEYCUTT] 007 641346-7

**Port Genset** 

**CHEVRON DELO 400 LE 15W40 (--- GAL)** 

## **COMPONENT CONDITION SUMMARY**



### RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status				ATTENTION	NORMAL	MARGINAL	
Visc @ 100°C	cSt	ASTM D445	15.7	<b>12.1</b>	12.0	12.0	

Customer Id: INGPAD Sample No.: MW0043041 Lab Number: 06008845 Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

## 23 Aug 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



## 20 Jul 2023 Diag: Wes Davis

FUEL



The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



### 06 Jun 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



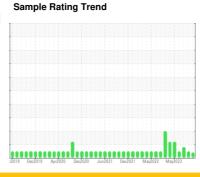


## **OIL ANALYSIS REPORT**

# ERNA E HONEYCUTT [ERNA E HONEYCUTT] 007 641346-7

**Port Genset** 

CHEVRON DELO 400 LE 15W40 (--- GAL)





## **DIAGNOSIS**

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

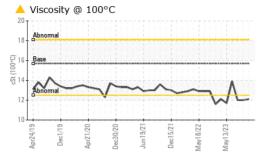
## Fluid Condition

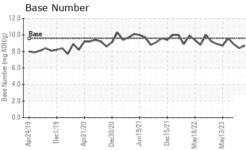
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		MW0043041	MW0054370	MW0054038
Sample Date		Client Info		31 Oct 2023	23 Aug 2023	20 Jul 2023
Machine Age	hrs	Client Info		3267	2414	2008
Oil Age	hrs	Client Info		409	406	395
Oil Changed		Client Info		N/A	N/A	Changed
Sample Status				ATTENTION	NORMAL	MARGINAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<b>▲</b> 3.1
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	4	7	6
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	3	2	2
Lead	ppm	ASTM D5185m	>17	0	0	0
Copper	ppm	ASTM D5185m	>70	<1	0	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		279	282	301
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m		279 0	282	301
	• • •					
Barium	ppm	ASTM D5185m		0	0	0
Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m		0 111	0 122	0 129
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 111 1	0 122 1	0 129 <1
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200	0 111 1 620	0 122 1 650	0 129 <1 716
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300	0 111 1 620 1485	0 122 1 650 1540	0 129 <1 716 1672
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 111 1 620 1485 598	0 122 1 650 1540 670	0 129 <1 716 1672 738
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1300	0 1111 1 620 1485 598 801	0 122 1 650 1540 670 778	0 129 <1 716 1672 738 886
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1300 3200	0 1111 1 620 1485 598 801 2375	0 122 1 650 1540 670 778 2883	0 129 <1 716 1672 738 886 3183
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1300 3200 limit/base	0 1111 1 620 1485 598 801 2375	0 122 1 650 1540 670 778 2883 history1	0 129 <1 716 1672 738 886 3183 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m	1300 3200 limit/base	0 1111 1 620 1485 598 801 2375 current	0 122 1 650 1540 670 778 2883 history1	0 129 <1 716 1672 738 886 3183 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1300 3200 limit/base >25	0 1111 1 620 1485 598 801 2375 current 5	0 122 1 650 1540 670 778 2883 history1 7	0 129 <1 716 1672 738 886 3183 history2 9
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1300 3200 limit/base >25 >20	0 1111 1 620 1485 598 801 2375 current 5 <1	0 122 1 650 1540 670 778 2883 history1 7	0 129 <1 716 1672 738 886 3183 history2 9 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	1300 3200 limit/base >25 >20 limit/base	0 1111 1 620 1485 598 801 2375 current 5 <1	0 122 1 650 1540 670 778 2883 history1 7	0 129 <1 716 1672 738 886 3183 history2 9 <1 0 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m	1300 3200 limit/base >25 >20 limit/base	0 111 1 620 1485 598 801 2375 current 5 <1 0 current 0.1	0 122 1 650 1540 670 778 2883 history1 7 1 0 history1 0.1	0 129 <1 716 1672 738 886 3183 history2 9 <1 0 history2 0.1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1300 3200 limit/base >25 >20 limit/base	0 111 1 620 1485 598 801 2375 current 5 <1 0 current 0.1 7.0	0 122 1 650 1540 670 778 2883 history1 7 1 0 history1 0.1 8.1	0 129 <1 716 1672 738 886 3183 history2 9 <1 0 history2 0.1 7.2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	1300 3200 limit/base >25 >20 limit/base >20 >30	0 1111 1 620 1485 598 801 2375 current 5 <1 0 current 0.1 7.0 22.5	0 122 1 650 1540 670 778 2883 history1 7 1 0 history1 0.1 8.1 20.7	0 129 <1 716 1672 738 886 3183 history2 9 <1 0 history2 0.1 7.2 22.3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m  Method ASTM D5185m ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m ASTM D5185m  ASTM D5185m  Method  *ASTM D7844  *ASTM D7624  *ASTM D7415  Method	1300 3200 limit/base >25 >20 limit/base >20 >30 limit/base >25	0 1111 1 620 1485 598 801 2375 current 5 <1 0 current 0.1 7.0 22.5 current	0 122 1 650 1540 670 778 2883 history1 7 1 0 history1 0.1 8.1 20.7 history1	0 129 <1 716 1672 738 886 3183 history2 9 <1 0 history2 0.1 7.2 22.3 history2



## **OIL ANALYSIS REPORT**



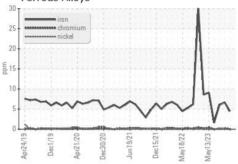


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

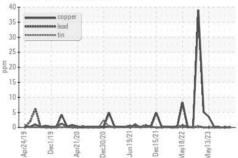
FLUID PROPER	TIES	method	iiiiii/base	current	riistory i	riistory
Visc @ 100°C	cSt	ASTM D445	15.7	<b>12.1</b>	12.0	12.0

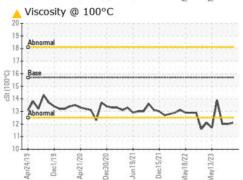
### **GRAPHS**

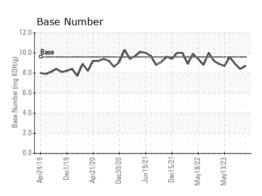
## Ferrous Alloys



## Non-ferrous Metals











Certificate L2367

Laboratory

Sample No. Lab Number **Unique Number** Test Package : MAR 2

: MW0043041 : 06008845 : 10742607

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 15 Nov 2023 : 16 Nov 2023 Diagnostician : Sean Felton

**INGRAM BARGE** 900 S 3RD ST PADUCAH, KY

US 42003 Contact: JEFF BISHOP

jeff.bishop@ingrambarge.com T:

\* - 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)

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