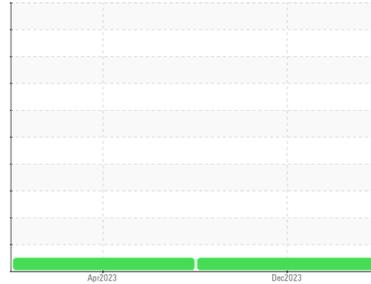




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**ASRI-TRL-HTR-0008 ASRI-TRL-HTR-0008**  
 Component  
**Circulating System**  
 Fluid  
**CHEVRON DELO 400 SYNTHETIC 0W30 (10 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 oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>HLC0002596</b>	HLC0001918	---
Sample Date	Client Info		<b>03 Dec 2023</b>	10 Apr 2023	---
Machine Age	hrs	Client Info	<b>80424</b>	77387	---
Oil Age	hrs	Client Info	<b>3037</b>	3200	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	<b>5</b>	6	---
Chromium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	<b>2</b>	0	---
Lead	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>107</b>	89	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>4</b>	13	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>711</b>	725	---
Calcium	ppm	ASTM D5185m	<b>1395</b>	1296	---
Phosphorus	ppm	ASTM D5185m 1140	<b>736</b>	730	---
Zinc	ppm	ASTM D5185m 1130	<b>863</b>	870	---
Sulfur	ppm	ASTM D5185m	<b>2850</b>	2946	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<b>6</b>	4	---
Sodium	ppm	ASTM D5185m	<b>0</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>5</b>	3	---

## INFRA-RED

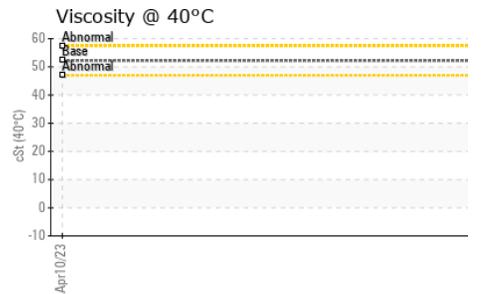
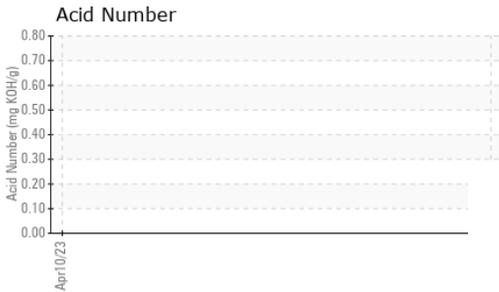
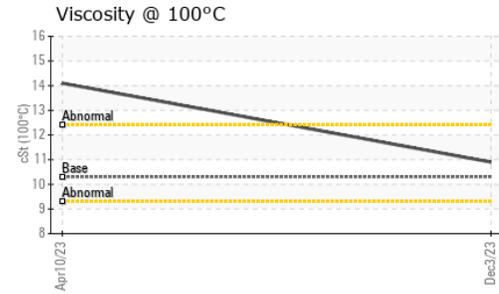
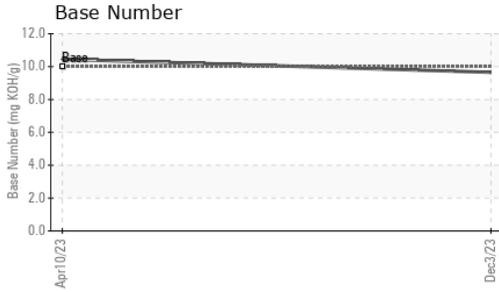
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	<b>7.7</b>	7.8	---
Sulfation	Abs/.1mm	*ASTM D7415	<b>16.5</b>	18.2	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	<b>12.1</b>	13.0	---
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.77</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10	<b>9.65</b>	10.45	---



# OIL ANALYSIS REPORT



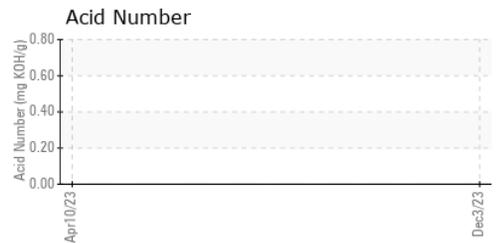
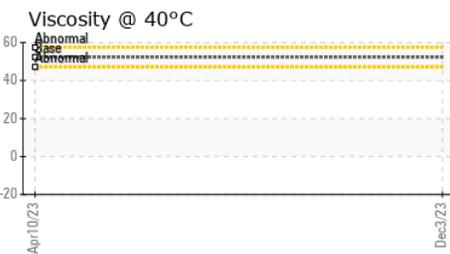
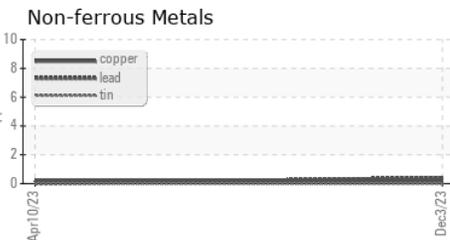
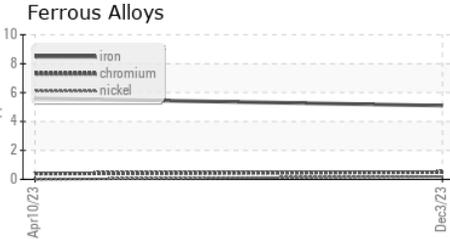
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.3	10.9	14.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image	no image
Bottom				no image	no image	no image

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HLC0002596 **Received** : 08 Dec 2023  
**Lab Number** : 06029560 **Diagnosed** : 15 Dec 2023  
**Unique Number** : 10779351 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: FT-IR, KV100, PrtCount, TBN )

**HILCORP EXPLORATION ALASKA - MILN POINT**  
 1000 MILNE POINT RD  
 PRUDOE BAY, AK  
 US 99734  
 Contact: Jerrod Rose  
 jrose@hilcorp.com

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)

T:  
F: