

Machine Id  
**DR182**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA ENVIRON MV 46 (100 LTR)**

**DIAGNOSIS**

**Recommendation**

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

**Fluid Condition**

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PC0080524</b>	PC0080574	PC0078057
Sample Date	Client Info			<b>02 Mar 2024</b>	20 Jan 2024	07 Jun 2023
Machine Age	hrs	Client Info		<b>9287</b>	9010	8028
Oil Age	hrs	Client Info		<b>0</b>	250	0
Oil Changed	Client Info			<b>Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	<b>NEG</b>	NEG	NEG

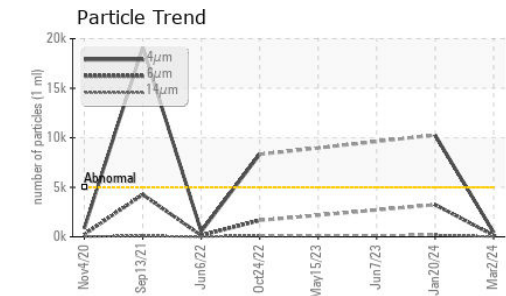
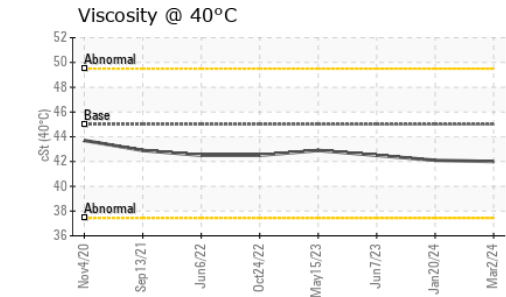
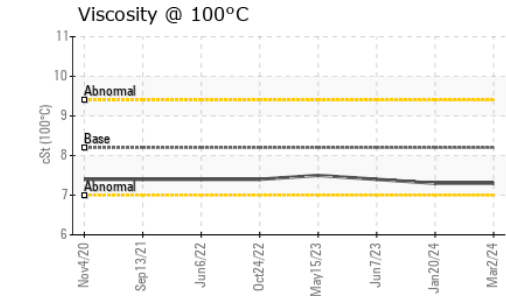
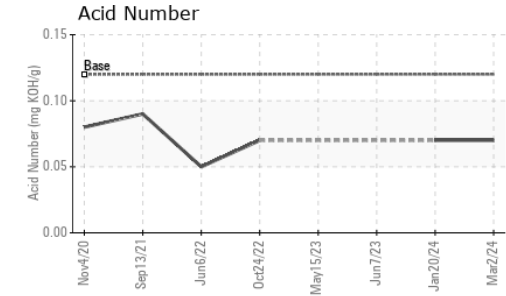
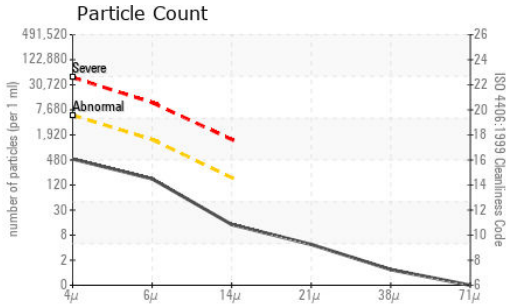
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>4</b>	4	4
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>10	<b>2</b>	2	2
Copper	ppm	ASTM D5185(m)	>75	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>2</b>	2	2
Calcium	ppm	ASTM D5185(m)	0	<b>4</b>	4	4
Phosphorus	ppm	ASTM D5185(m)	650	<b>388</b>	379	402
Zinc	ppm	ASTM D5185(m)	0	<b>16</b>	15	16
Sulfur	ppm	ASTM D5185(m)	1420	<b>1809</b>	1745	1717
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>445</b>	▲ 10271	---	
Particles >6µm	ASTM D7647	>1300	<b>149</b>	▲ 3239	---	
Particles >14µm	ASTM D7647	>160	<b>12</b>	● 184	---	
Particles >21µm	ASTM D7647	>40	<b>4</b>	34	---	
Particles >38µm	ASTM D7647	>10	<b>1</b>	2	---	
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	---	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>16/14/11</b>	▲ 21/19/15	---	

# OIL ANALYSIS REPORT

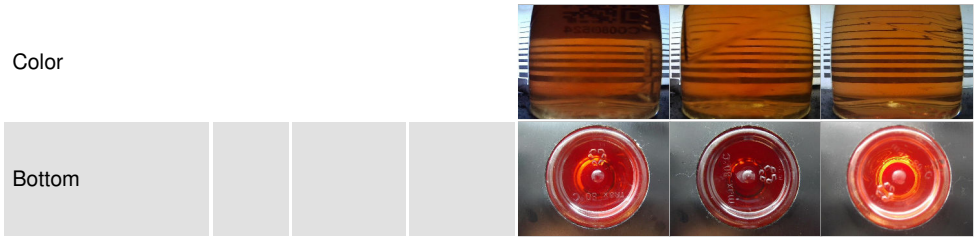


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	<b>0.07</b>	0.07	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	45.0	<b>42.0</b>	42.1	42.5
Visc @ 100°C	cSt	ASTM D7279(m)	8.2	<b>7.3</b>	7.3	7.4
Viscosity Index (VI)	Scale	ASTM D2270*	158	<b>138</b>	137	139

## SAMPLE IMAGES



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0080524  
**Lab Number** : **02621464**  
**Unique Number** : 5746583  
**Test Package** : IND 2 ( Additional Tests: KV100, VI )

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
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 Stouffville, ON  
 CA L4A 2G8  
 Contact: Shannon Abbott  
 sabbott@gipi.com  
 T: (905)750-5900  
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.