

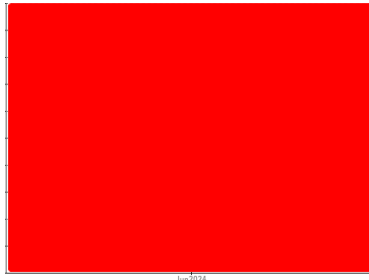
# PROBLEM SUMMARY

Sample Rating Trend

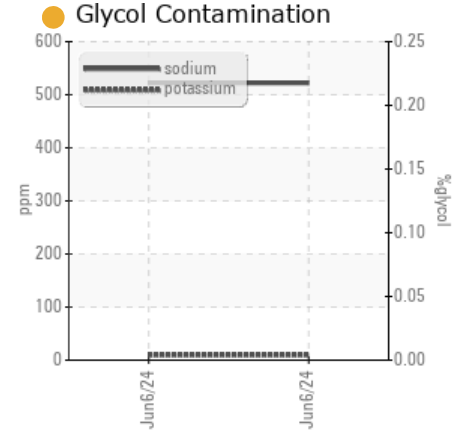
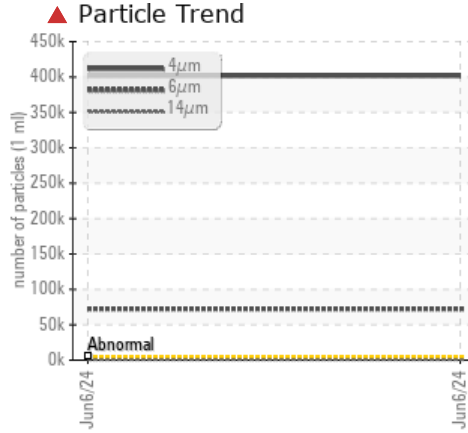
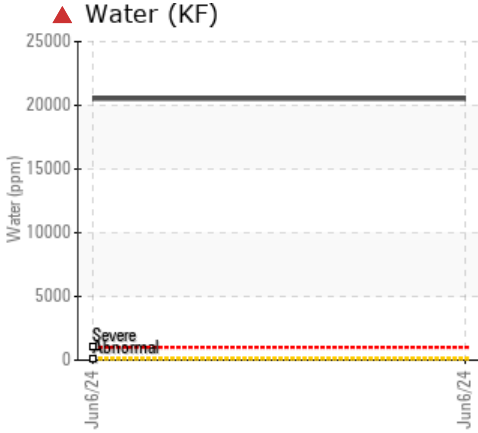
**WATER**



Area  
**Vicinity Energy - 888095**  
 Machine Id  
**FK420**  
 Component  
**Unknown Component**  
 Fluid  
**CHEVRON DELO 710 LE (--- GAL)**



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

The sample submitted is wet and 16 times dirtier than the ISO dirt count of reference virgin oil (FK421, ISO 22/19/15)

## PROBLEMATIC TEST RESULTS

| Sample Status   |        |              |           | SEVERE     | --- | --- |
|-----------------|--------|--------------|-----------|------------|-----|-----|
| Water           | %      | ASTM D6304*  |           | ▲ 2.052    | --- | --- |
| ppm Water       | ppm    | ASTM D6304*  |           | ▲ 20529    | --- | --- |
| Particles >4µm  |        | ASTM D7647   | >5000     | ▲ 401701   | --- | --- |
| Particles >6µm  |        | ASTM D7647   | >640      | ▲ 72351    | --- | --- |
| Particles >14µm |        | ASTM D7647   | >160      | ▲ 825      | --- | --- |
| Particles >21µm |        | ASTM D7647   | >40       | ▲ 107      | --- | --- |
| Oil Cleanliness |        | ISO 4406 (c) | >19/16/14 | ▲ 26/23/17 | --- | --- |
| Appearance      | scalar | Visual*      | NORML     | ▲ MILKY    | --- | --- |
| Free Water      | scalar | Visual*      |           | ▲ 5%       | --- | --- |

Customer Id: CHECOB  
 Sample No.: E30002356  
 Lab Number: 02641402  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Tatiana Sorkina +1 (800)263-3939  
[tsorkina@e360s.ca](mailto:tsorkina@e360s.ca)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS



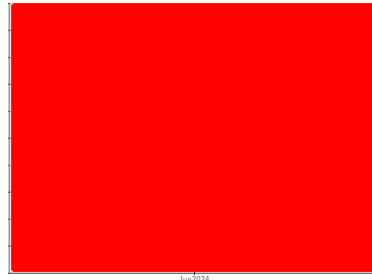
# OIL ANALYSIS REPORT

Sample Rating Trend

WATER



Area  
**Vicinity Energy - 888095**  
 Machine Id  
**FK420**  
 Component  
**Unknown Component**  
 Fluid  
**CHEVRON DELO 710 LE (--- GAL)**



## DIAGNOSIS

### ▲ Recommendation

The sample submitted is wet and 16 times dirtier than the ISO dirt count of reference virgin oil (FK421, ISO 22/19/15)

### ▲ Contamination

Water contamination levels are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high. Oil Cleanliness are severely high... Particles >14µm are abnormally high. Particles >21µm are abnormally high.

### ● Fluid Condition

Sodium ppm levels are notably high.

## SAMPLE INFORMATION

|                  | method      | limit/base  | current        | history1 | history2 |
|------------------|-------------|-------------|----------------|----------|----------|
| Machine ID       | Client Info |             | Engine Oil Pan | ---      | ---      |
| Department       | Client Info |             | Sales          | ---      | ---      |
| Sample From      | Client Info |             | Machine        | ---      | ---      |
| Production Stage | Client Info |             | Initial        | ---      | ---      |
| Sent to WC       | Client Info |             | 06/10/2024     | ---      | ---      |
| Sample Number    | Client Info |             | E30002356      | ---      | ---      |
| Sample Date      | Client Info |             | 06 Jun 2024    | ---      | ---      |
| Machine Age      | hrs         | Client Info | 0              | ---      | ---      |
| Oil Age          | hrs         | Client Info | 0              | ---      | ---      |
| Oil Changed      | Client Info |             | N/A            | ---      | ---      |
| Sample Status    |             |             | SEVERE         | ---      | ---      |

## WEAR METALS

|           | method | limit/base    | current | history1 | history2 |
|-----------|--------|---------------|---------|----------|----------|
| Iron      | ppm    | ASTM D5185(m) | 5       | ---      | ---      |
| Chromium  | ppm    | ASTM D5185(m) | 5       | ---      | ---      |
| Nickel    | ppm    | ASTM D5185(m) | 0       | ---      | ---      |
| Titanium  | ppm    | ASTM D5185(m) | 0       | ---      | ---      |
| Silver    | ppm    | ASTM D5185(m) | 0       | ---      | ---      |
| Aluminum  | ppm    | ASTM D5185(m) | 1       | ---      | ---      |
| Lead      | ppm    | ASTM D5185(m) | 2       | ---      | ---      |
| Copper    | ppm    | ASTM D5185(m) | 1       | ---      | ---      |
| Tin       | ppm    | ASTM D5185(m) | 0       | ---      | ---      |
| Antimony  | ppm    | ASTM D5185(m) | 0       | ---      | ---      |
| Vanadium  | ppm    | ASTM D5185(m) | 0       | ---      | ---      |
| Beryllium | ppm    | ASTM D5185(m) | 0       | ---      | ---      |
| Cadmium   | ppm    | ASTM D5185(m) | 0       | ---      | ---      |

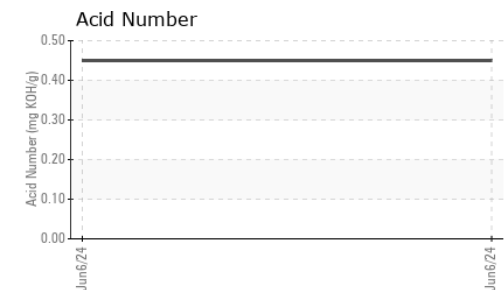
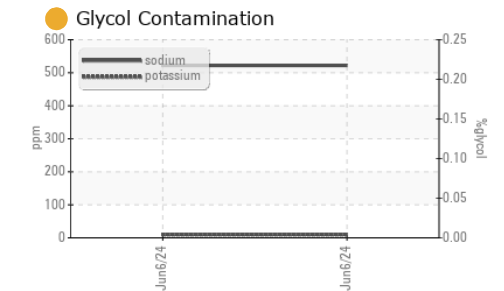
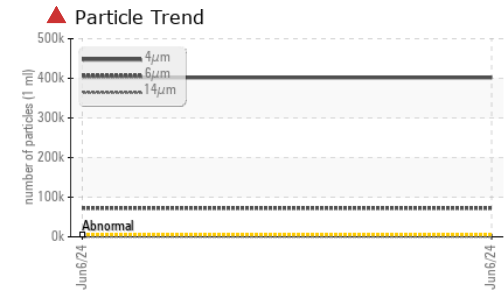
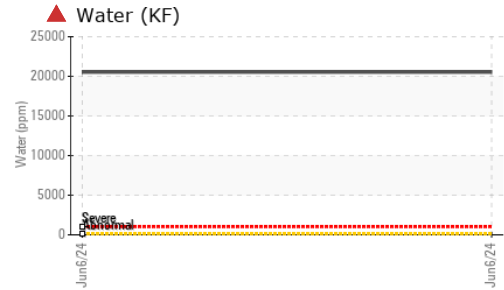
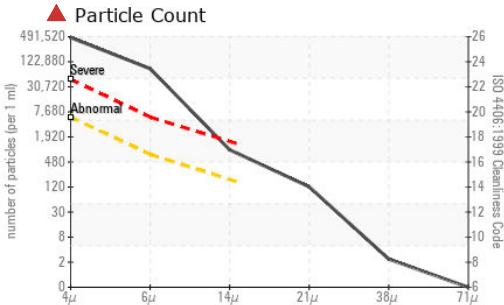
## ADDITIVES

|            | method | limit/base       | current | history1 | history2 |
|------------|--------|------------------|---------|----------|----------|
| Boron      | ppm    | ASTM D5185(m)    | 48      | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m)    | <1      | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m)    | 42      | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m)    | 0       | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m)    | 19      | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m)    | 2896    | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m)    | 19      | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) 10 | 25      | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185(m)    | 1858    | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m)    | <1      | ---      | ---      |

## CONTAMINANTS

|           | method | limit/base        | current | history1 | history2 |
|-----------|--------|-------------------|---------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m)     | 3       | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | ● 522   | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | 10      | ---      | ---      |
| Water     | %      | ASTM D6304*       | ▲ 2.052 | ---      | ---      |
| ppm Water | ppm    | ASTM D6304*       | ▲ 20529 | ---      | ---      |

# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : E30002356  
**Lab Number** : **02641402**  
**Unique Number** : 5798941  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**Environmental 360 Solutions Ltd.**  
 640 Victoria Street  
 Cobourg, ON  
 CA K9A 5H5  
 Contact: Tatiana Sorkina  
 tsorkina@e360s.ca  
 T: (800)263-3939  
 F: (905)373-4950

To discuss this sample report, contact Customer Service at 1-905-372-2251.  
 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.

| FLUID CLEANLINESS | method       | limit/base | current    | history1 | history2 |
|-------------------|--------------|------------|------------|----------|----------|
| Particles >4µm    | ASTM D7647   | >5000      | ▲ 401701   | ---      | ---      |
| Particles >6µm    | ASTM D7647   | >640       | ▲ 72351    | ---      | ---      |
| Particles >14µm   | ASTM D7647   | >160       | ▲ 825      | ---      | ---      |
| Particles >21µm   | ASTM D7647   | >40        | ▲ 107      | ---      | ---      |
| Particles >38µm   | ASTM D7647   | >10        | 2          | ---      | ---      |
| Particles >71µm   | ASTM D7647   | >3         | 0          | ---      | ---      |
| Oil Cleanliness   | ISO 4406 (c) | >19/16/14  | ▲ 26/23/17 | ---      | ---      |

| FLUID DEGRADATION | method   | limit/base | current | history1 | history2 |
|-------------------|----------|------------|---------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* | 0.45    | ---      | ---      |

| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Precipitate      | scalar | Visual*    | NONE    | VLITE    | ---      | --- |
| Silt             | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Debris           | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Sand/Dirt        | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Appearance       | scalar | Visual*    | NORML   | ▲ MILKY  | ---      | --- |
| Odor             | scalar | Visual*    | NORML   | NORML    | ---      | --- |
| Emulsified Water | scalar | Visual*    | NEG     | ---      | ---      |     |
| Free Water       | scalar | Visual*    | ▲ 5%    | ---      | ---      |     |

| FLUID PROPERTIES     | method | limit/base    | current | history1 | history2 |     |
|----------------------|--------|---------------|---------|----------|----------|-----|
| Visc @ 40°C          | cSt    | ASTM D7279(m) | 136.4   | 135      | ---      | --- |
| Visc @ 100°C         | cSt    | ASTM D7279(m) | 15.5    | 14.4     | ---      | --- |
| Viscosity Index (VI) | Scale  | ASTM D2270*   | 117     | 105      | ---      | --- |

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