

# **OIL ANALYSIS REPORT**

# Sample Rating Trend







# KEMP QUARRIES / PRYOR STONE [65796] **ÖHT110**

Component **Rear Left Final Drive** 

PETRO CANADA PRODU

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Pm2 performed. All oil samples taken. Engine oil, transmission oil, and all filters changed.)

#### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

#### **Fluid Condition**

The condition of the oil is acceptable for the time in service.

Sample Number   Client Info   PCA0084255   PCA0083992   PCA008393   PCA00839392   PCA008393392   PCA00839392   PCA00839392   PCA00839392   PCA00839392   PC	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Date					PCA0084255		
Machine Age   hrs   Client Info   28083   27575   27095							
Oil Age         hrs         Client Info         988         480         2183           Oil Changed         Client Info         Oil Added         Oil Added         Changed         Changed           Sample Status         NORMAL         NORMAL         NORMAL         NORMAL         NORMAL           WEAR METALS         method         limit/base         current         history1         history2           Iron         pp         ASTM D5185m         >800         33         18         18         39           Chromium         ppm         ASTM D5185m         >10         0         0         41           Nickel         ppm         ASTM D5185m         >5         0         <1         0           Silver         ppm         ASTM D5185m         >15         <1         0         0           Silver         ppm         ASTM D5185m         >75         <1         2         1           Lead         ppm         ASTM D5185m         >10         0         <1         0           Copper         ppm         ASTM D5185m         >8         <1         0         0           Tin         ppm         ASTM D5185m         >8         <1         0 <td></td> <td>hrs</td> <td></td> <td></td> <th>_</th> <td></td> <td></td>		hrs			_		
Oil Changed   Client Info   NORMAL							
NORMAL   NORMAL   NORMAL   NORMAL   WEAR METALS   method   limit/base   current   history1   history2							
Irron	-				NORMAL	NORMAL	
Chromium	WEAR METAL	_S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>800	33	18	39
Titanium	Chromium	ppm	ASTM D5185m	>10	0	0	<1
Silver	Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Astronome	Titanium	ppm	ASTM D5185m	>15	<1	0	0
Lead	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper	Aluminum	ppm	ASTM D5185m	>75	<1	2	1
Tin	Lead	ppm	ASTM D5185m	>10	0	<1	0
Tin	Copper	ppm	ASTM D5185m	>75	1	<1	3
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         0         2         1           Barium         ppm         ASTM D5185m         0         <1         <1         2           Molybdenum         ppm         ASTM D5185m         0         <1         <1         <1         2           Manganese         ppm         ASTM D5185m         0         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1	Tin	ppm	ASTM D5185m	>8	<1	0	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         0         <1         <1         2           Manganese         ppm         ASTM D5185m         0         <1         <1         <1           Magnesium         ppm         ASTM D5185m         9         15         14         16           Calcium         ppm         ASTM D5185m         3114         3345         3426         2035           Phosphorus         ppm         ASTM D5185m         1099         973         1012         757           Zinc         ppm         ASTM D5185m         1245         1207         1230         951           Sulfur         ppm         ASTM D5185m         7086         4517         4504         3899           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         19         19         11           Sodium         ppm         ASTM D5185m         >400         19         19         11           Sodium         ppm         ASTM D5185m         >400         19         19         11           Sodium         ppm         ASTM D5185m	Boron	ppm	ASTM D5185m	2	0	2	1
Manganese         ppm         ASTM D5185m         0         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1	Barium	ppm	ASTM D5185m	0	0	2	0
Magnesium         ppm         ASTM D5185m         9         15         14         16           Calcium         ppm         ASTM D5185m         3114         3345         3426         2035           Phosphorus         ppm         ASTM D5185m         1099         973         1012         757           Zinc         ppm         ASTM D5185m         1245         1207         1230         951           Sulfur         ppm         ASTM D5185m         7086         4517         4504         3899           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         19         19         19         11           Sodium         ppm         ASTM D5185m         >400         19         19         11           CONTAMINANTS	Molybdenum	ppm	ASTM D5185m	0	<1	<1	2
Calcium         ppm         ASTM D5185m         3114         3345         3426         2035           Phosphorus         ppm         ASTM D5185m         1099         973         1012         757           Zinc         ppm         ASTM D5185m         1245         1207         1230         951           Sulfur         ppm         ASTM D5185m         7086         4517         4504         3899           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         19         19         11           Sodium         ppm         ASTM D5185m         >20         0         1         <1	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus         ppm         ASTM D5185m         1099         973         1012         757           Zinc         ppm         ASTM D5185m         1245         1207         1230         951           Sulfur         ppm         ASTM D5185m         7086         4517         4504         3899           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         19         19         11           Sodium         ppm         ASTM D5185m         >20         0         1         <1	Magnesium	ppm	ASTM D5185m	9	15	14	16
Zinc         ppm         ASTM D5185m         1245         1207         1230         951           Sulfur         ppm         ASTM D5185m         7086         4517         4504         3899           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         19         19         11           Sodium         ppm         ASTM D5185m         3         0         2           Potassium         ppm         ASTM D5185m         >20         0         1         <1	Calcium	ppm	ASTM D5185m	3114	3345	3426	2035
Sulfur         ppm         ASTM D5185m         7086         4517         4504         3899           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >400         19         19         11           Sodium         ppm         ASTM D5185m         3         0         2           Potassium         ppm         ASTM D5185m         >20         0         1         <1	Phosphorus	ppm	ASTM D5185m	1099	973	1012	757
CONTAMINANTS method limit/base current history1 history2  Silicon ppm ASTM D5185m >400 19 19 19 11  Sodium ppm ASTM D5185m >20 0 1 <1  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Zinc	ppm	ASTM D5185m	1245	1207	1230	951
Silicon	Sulfur	ppm	ASTM D5185m	7086	4517	4504	3899
Sodium         ppm         ASTM D5185m         3         0         2           Potassium         ppm         ASTM D5185m         >20         0         1         <1	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 1 <1  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE NONE NONE NONE NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE  Debris scalar *Visual NONE NONE NONE NONE NONE  Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML  Emulsified Water scalar *Visual >0.2 NEG NEG NEG  Free Water scalar *Visual NEG NEG NEG	Silicon	ppm	ASTM D5185m	>400	19	19	11
White Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Sodium	ppm	ASTM D5185m		3	0	2
White Metal scalar *Visual NONE NONE NONE MODER Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG Free Water Scalar *Visual NEG NEG NEG	Potassium	ppm	ASTM D5185m	>20	0	1	<1
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGFree Waterscalar*VisualNEGNEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE 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 NORML Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NEG NEG NEG	White Metal	scalar	*Visual	NONE	NONE	NONE	
Silt scalar *Visual NONE 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 Emulsified Water scalar *Visual >0.2 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance scalar *Visual NORML Free Water scalar *Visual >0.2 NEG	Debris	scalar	*Visual	NONE	NONE		NONE
Odor scalar *Visual NORML NORM	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water       scalar       *Visual       >0.2       NEG       NEG       NEG         Free Water       scalar       *Visual       NEG       NEG       NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG		scalar	*Visual	NORML	NORML	NORML	NORML
		scalar	*Visual	>0.2			
FLUID PROPERTIES method limit/base current history1 history2	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2

Visc @ 40°C

cSt

ASTM D445 213.9

173

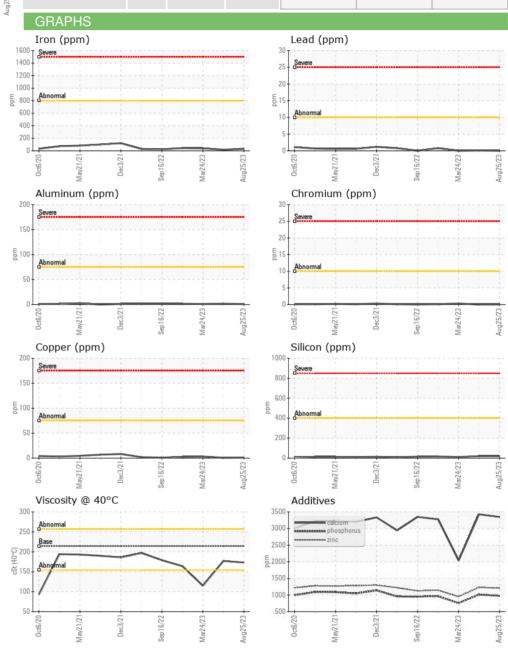
177

115



# **OIL ANALYSIS REPORT**







Laboratory Sample No. Lab Number **Unique Number** 

: PCA0084255 : 05942530 : 10633142

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

: 05 Sep 2023 : 07 Sep 2023 Kemp Quarries - Pryor Stone - Pryor 1050 E 520 Rd

Pryor, OK US 74361 Contact:

no image

no image

pryor@pryorstone.com

T: F:

Test Package : MOB 1 Certificate L2367 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)