

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

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KEMP QUARRIES / PRYOR STONE [68434] Machine Id OHT085

Component Hydraulic System

PETRO CANADA HYDREX AW 68 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Pm1 performed. All oil samples taken. Engine oil, engine oil filters, fuel, air, and cabin air filters changed.)

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

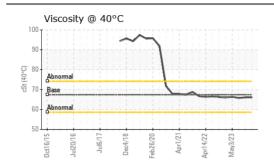
FLUID CONDITION

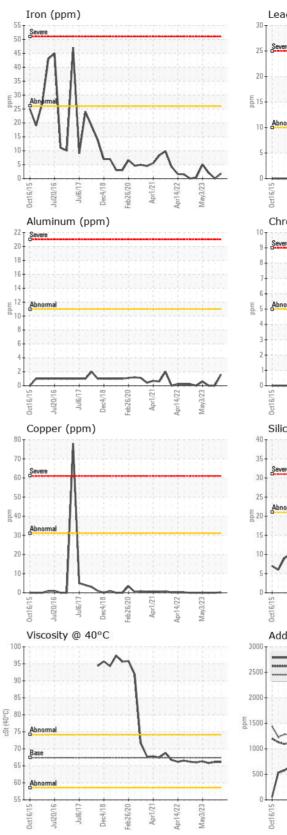
The condition of the oil is acceptable for the time in service.

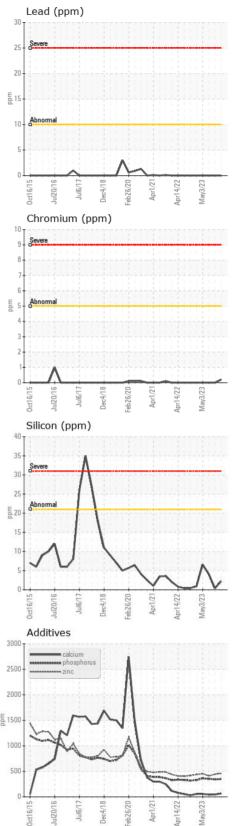
Sample Number Client Info PCA0086332 PCA084309 PCA0084309 PCA008431 PCA007 PCA011 PCA01	JU (QAL)						
Sample DateClient InfoIP Feb 202403 Nov 202324 Jul 21Machine AgehrsClient Info149341443313895Oil AgehrsClient Info5015380Filter AgehrsClient InfoOil AddedChangedN/AFilter ChangedClient InfoNoneChangedChangedSample StatusClient InfoNoneNORMALNORMALIronppmASTM D5185m>26202ChromiumppmASTM D5185m>10<100NickelppmASTM D5185m>10<100AluminumppmASTM D5185m>10<100AluminumppmASTM D5185m>10<100CopperppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VallevvisualNONENONENONENONENONESiliconppmASTM D5185m>20<100VallevvisualNONENONENONENONENONESand/Dirtscalar'VisualNONENONENONENONESiliconppmASTM D5185m>20<100Sand/Dirtscalar'VisualNONENONENONENONESand/	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine AgehrsClient Info149341443313895Oil AgehrsClient Info501216213895Filter AgehrsClient Info5015380Oil AdagedClient InfoNoneChangedChangedFilter ChangedClient InfoNoneChangedChangedSample StatusClient InfoNoneChangedChangedIronppmASTM D5185m>26202ChromiumppmASTM D5185m>5<100NickelppmASTM D5185m>10<100TitaniumppmASTM D5185m>10<100AluminumppmASTM D5185m>10000AluminumppmASTM D5185m>10000CopperppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>22<100Vellow Metalscalar'VisualNONENONENONENONESiliconppmASTM D5185m>212<14PotassiumppmASTM D5185m>20<100SiliconppmASTM D5185m>20<100Sadd/Dittscalar'VisualNONENONENONENONESodiumppmAS	Sample Number		Client Info		PCA0086332	PCA0084309	PCA0084601
Oil Age hrs Client Info 501 2162 13895 Filter Age hrs Client Info 501 538 0 Oil Changed Client Info Oil Added Changed None Changed Nore Filter Changed Client Info None Nore Nore Nore Nore Sample Status Client Info None Nore Nore Nore Nore Iron ppm ASTM D5185m >26 2 0 2 Chromium ppm ASTM D5185m >10 <1 0 0 Nickel ppm ASTM D5185m >10 <1 0 0 ASTM D5185m >10 0 0 0 0 0 Lead ppm ASTM D5185m >10 <1 0 0 0 Vanadium ppm ASTM D5185m >10 <1 0 0 0 Vallow Metal scalar *Visual	Sample Date		Client Info		19 Feb 2024	03 Nov 2023	24 Jul 2023
Filter AgehrsClient Info5015380Oil ChangedClient InfoOil AddedChangedN/AFilter ChangedClient InfoNoneChangedChangedSample StatusClient InfoNORMALNORMALNORMALIronppmASTM D5185m>26202ChromiumppmASTM D5185m>10<100NickelppmASTM D5185m>10<100TitaniumppmASTM D5185m0000AluminumppmASTM D5185m51200LeadppmASTM D5185m>10000CopperppmASTM D5185m>10000VanadiumppmASTM D5185m>10000VanadiumppmASTM D5185m>10000VanadiumppmASTM D5185m>10000VanadiumppmASTM D5185m>20<100VanadiumppmASTM D5185m>20<100VanadiumppmASTM D5185m>20<100VanadiumppmASTM D5185m>20<100VanadiumppmASTM D5185m>20<100SiliconppmASTM D5185m>20<100SiliconppmASTM D5185m>20	Machine Age	hrs	Client Info		14934	14433	13895
Oil ChangedClient InfoOil AddedChangedN/AFilter ChangedClient InfoNoneNoneChangedChangedSample StatusVNORMALNORMALNORMALNORMALIronppmASTM D5185>26202ChromiumppmASTM D5185>5<100NickelppmASTM D5185>10<100TitanumppmASTM D5185<0000AluminumppmASTM D5185>10000AluminumppmASTM D5185>10000CopperppmASTM D5185>10000VanadiumppmASTM D5185>10000VanadiumppmASTM D5185>10000VanadiumppmASTM D5185>10000VanadiumppmASTM D5185>20<100VanadiumppmASTM D5185>20<100VanadiumppmASTM D5185>20<100VanadiumppmASTM D5185>20<100VanadiumppmASTM D5185>20<100SiliconppmASTM D5185>20<100SiliconppmASTM D5185>20<100Sadar'VisualNONENO	Oil Age	hrs	Client Info		501	2162	13895
Filter Changed Sample StatusClient InfoNoneNoneChanged NORMALChanged NORMALNoneIronppmASTM D5185m>26202ChromiumppmASTM D5185m>5<100NickelppmASTM D5185m>10<100TitaniumppmASTM D5185m10<100SilverppmASTM D5185m>10<100AluminumppmASTM D5185m>10000LeadppmASTM D5185m>10<100CopperppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>20<100VisualNONENONENONENONENONENONESiliconppmASTM D5185m>212<14PotassiumppmASTM D5185m>20<100Sand/Dirtscalar"VisualNONENONENONENONESolitscalar"VisualNONENONENONENONESolitscalar"VisualNONENONENONENONESolitscalar"VisualNONENONENONENONESolitscalar"VisualNONENONENONENONESodiumppmASTM D5185	Filter Age	hrs	Client Info		501	538	0
Sample StatusNORMALNORMALNORMALNORMALNORMALIronppmASTM D5185m>26202ChromiumppmASTM D5185m>5<100NickelppmASTM D5185m>10<100TitaniumppmASTM D5185m<100SilverppmASTM D5185m>10<100AluminumppmASTM D5185m>10000LeadppmASTM D5185m>10<100CopperppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>20<100Vellow Metalscalar"VisualNONENONENONENONESiliconppmASTM D5185m>20<100VaterWC Method>0.1NEGNORENONESilitscalar"VisualNONENONENONESand/Dirtscalar"VisualNONENONENONEAppearancescalar"VisualNORMNORMNORMAppearancescalar"VisualNORMNORMNORMGodorscalar"VisualNORMNORMNORMAppearancescalar"VisualNORMNORMNORMBoronppmASTM D5185m0	Oil Changed		Client Info		Oil Added	Changed	N/A
Iron ppm ASTM D5185m >26 2 0 2 Chromium ppm ASTM D5185m >5 <1 0 0 Nickel ppm ASTM D5185m >10 <1 0 0 Titanium ppm ASTM D5185m Inclosed 0 0 0 Aluminum ppm ASTM D5185m >10 0 0 0 Aluminum ppm ASTM D5185m >10 0 0 0 Lead ppm ASTM D5185m >10 <1 0 0 Copper ppm ASTM D5185m >10 <1 0 0 Vanadium ppm ASTM D5185m >10 <1 0 0 Vellow Metal scalar "Visual NONE NONE NONE NONE Silicon ppm ASTM D5185m >21 2 <1 4 Potassium ppm ASTM D5185m >20 <1	Filter Changed		Client Info		None	Changed	Changed
Chromium ppm ASTM D5185m >5 <1	Sample Status				NORMAL	NORMAL	NORMAL
Chromium ppm ASTM D5185m >5 <1					•		
NickelppmASTM D5185m>10<1							
Titanium ppm ASTM D5185m <							
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >11 2 0 0 Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >31 <1 0 0 Tin ppm ASTM D5185m >10 <1 0 0 Vanadium ppm ASTM D5185m >10 <1 0 0 Vanadium ppm ASTM D5185m >10 <1 0 0 <1 White Metal scalar *Visual NONE NONE NONE NONE Silicon ppm ASTM D5185m >20 <1 0 0 Water WC Method >0.1 NEG NONE NONE NONE Silit scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORM NORML <th></th> <th></th> <th></th> <th>>10</th> <th></th> <th></th> <th></th>				>10			
Aluminum ppm ASTM D5185m >11 2 0 0 Lead ppm ASTM D5185m >10 0 0 0 0 Copper ppm ASTM D5185m >31 <1 0 0 0 Tin ppm ASTM D5185m >10 <1 0 0 0 Vanadium ppm ASTM D5185m >10 <1 0 0 <1 White Metal scalar *Visual NONE NONE NONE NONE NONE Silicon ppm ASTM D5185m<>20 <1 0 0 0 Vater WC Method >0.1 NEG NORE NORE NOR Sand/Dirt scalar *Visual NONE NORE NOR NOR Appearance scalar *Visual NOR NORM NORM NOR Godr scalar *Visual NORM NORM NOR NOR							
LeadppmASTM D5185m>10000CopperppmASTM D5185m>31<100TinppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>10C100VanadiumppmASTM D5185m>10NONENONENONENONEVellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>20<100WaterWC Method>0.1NEGNEGNONESilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORENORENORENORAppearancescalar*VisualNORHNORMLNORMLNORGodrscalar*VisualNORNORMLNORMLNORBoronppmASTM D5185m0000BariumppmASTM D5185m0000ManganeseppmASTM D5185m0000ManganeseppmASTM D5185m06447742PhosphorusppmASTM D5185m3303483422351ZincppmASTM D5185m330					-		
CopperppmASTM D5185m>31<1							
Tin ppm ASTM D5185m >10 <1					-		
Vanadium ppm ASTM D5185m 0 0 <1							
White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>20<100PotassiumppmASTM D5185m>20<100WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORSodiumppmASTM D5185m0000BoronppmASTM D5185m0000ManganeseppmASTM D5185m0000ManganeseppmASTM D5185m0440412PhosphorusppmASTM D5185m330348342351ZincppmASTM D5185m330460444412				>10			÷
Yellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>212<144PotassiumppmASTM D5185m>20<100WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORBoronppmASTM D5185m0000BariumppmASTM D5185m0000ManganeseppmASTM D5185m0000ManganeseppmASTM D5185m044742PhosphorusppmASTM D5185m3303483422351ZincppmASTM D5185m3304604444412							
Silicon ppm ASTM D5185m >21 2 <1							NONE
PotassiumppmASTM D5185m>20<1	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNOROdorscalar*VisualNORMLNORMLNORMLNORNOREmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m00000BariumppmASTM D5185m00000ManganeseppmASTM D5185m00000MagnesiumppmASTM D5185m506447742PhosphorusppmASTM D5185m430460444412	Silicon	ppm	ASTM D5185m	>21	2	<1	4
Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNOROdorscalar*VisualNORMLNORMLNORMLNORMLNORNOREmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m00<10BoronppmASTM D5185m0000BariumppmASTM D5185m0000ManganeseppmASTM D5185m0<100MagnesiumppmASTM D5185m506447742PhosphorusppmASTM D5185m430460444412	Potassium	ppm	ASTM D5185m	>20	<1	0	0
Debrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNOROdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNOREmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m00<10BoronppmASTM D5185m0000BariumppmASTM D5185m0000MalganeseppmASTM D5185m0<100MagnesiumppmASTM D5185m506444742PhosphorusppmASTM D5185m330348342351ZincppmASTM D5185m4304604444412	Water		WC Method	>0.1	NEG	NEG	NEG
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m00<10BoronppmASTM D5185m0000BariumppmASTM D5185m0000MolybdenumppmASTM D5185m0000MagnesiumppmASTM D5185m506447742PhosphorusppmASTM D5185m330348342351ZincppmASTM D5185m4304604444412	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORSodiumppmASTM D5185m000	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odor scalar *Visual NORML NOR Sodium ppm ASTM D5185m 0.0 0	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.1 NEG NEG NEG Sodium ppm ASTM D5185m 0 0 <1 0 Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 0 Manganese ppm ASTM D5185m 0 <1 0	Appearance	scalar	*Visual	NORML	NORML	NORML	NORM
Sodium ppm ASTM D5185m 0 <1	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 50 64 477 42 Phosphorus ppm ASTM D5185m 330 348 342 351 Zinc ppm ASTM D5185m 430 460 4444 412	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 0 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 50 64 477 42 Phosphorus ppm ASTM D5185m 330 348 342 351 Zinc ppm ASTM D5185m 430 460 444 412	Sodium	ppm	ASTM D5185m		0	<1	0
Molybdenum ppm ASTM D5185m 0 <1	Boron		ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 0 0 0 0 Magnesium ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 0 <1	Molybdenum	ppm	ASTM D5185m	0	<1	0	0
Calcium ppm ASTM D5185m 50 64 47 42 Phosphorus ppm ASTM D5185m 330 348 342 351 Zinc ppm ASTM D5185m 430 460 444 412	Manganese	ppm	ASTM D5185m	0	0	0	0
Phosphorus ppm ASTM D5185m 330 348 342 351 Zinc ppm ASTM D5185m 430 460 444 412	Magnesium	ppm	ASTM D5185m	0	<1	0	0
Zinc ppm ASTM D5185m 430 460 444 412	Calcium	ppm	ASTM D5185m	50	64	47	42
	Phosphorus	ppm	ASTM D5185m	330	348	342	351
Sulfur ppm ASTM D5185m 760 870 844 925	Zinc	ppm	ASTM D5185m	430	460	444	412
	Sulfur	ppm	ASTM D5185m	760	870	844	925
Visc @ 40°C cSt ASTM D445 67.4 66.1 65.8	Visc @ 40°C	cSt	ASTM D445	67.4	66.1	66.1	65.8

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Submitted By:









Kemp Quarries - Pryor Stone - Pryor : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Laboratory Sample No. : PCA0086332 Received : 18 Mar 2024 1050 E 520 Rd Lab Number : 06121867 : 19 Mar 2024 Pryor, OK Tested : 21 Mar 2024 - Jonathan Hester US 74361 Unique Number : 10936018 Diagnosed Test Package : MOB 1 Contact: Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. pryor@pryorstone.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Т: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: