

OIL ANALYSIS REPORT

KEMP QUARRIES / HULBERT

Sample Rating Trend



NORMAL

Component Hydraulic System

OHT047

PETRO CANADA HYDREX AW 68 (--- GAL)

REX AW 68 (GAL)	w2013 Jan20	Dec2014 Apr2016	Jan2017 Aug2019 Sep2020 J	Um2022	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number Sample Date		Client Info Client Info		PCA0109293 06 Jan 2024	PCA0086852 15 Sep 2023	PCA0086113 08 Apr 2023
Machine Age	hrs	Client Info		37484	37028	36026
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	TION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	6	7	2
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	0	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	<1	<1	0
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	1	2
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	0	15	24	22
Calcium	ppm	ASTM D5185m	50	100	120	122
Phosphorus	ppm	ASTM D5185m	330	325	383	364
Zinc	ppm	ASTM D5185m	430	421	464	457
Sulfur	ppm	ASTM D5185m	760	825	927	1088
CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	2	2	<1
Sodium	ppm	ASTM D5185m		<1	0	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

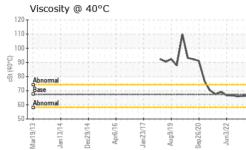
There is no indication of any contamination in the oil.

Fluid Condition

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



OIL ANALYSIS REPORT



	FLUID PROP	ERTIES	method	limit/base	current	history1	history2			
	Visc @ 40°C	cSt	ASTM D445	67.4	66.3	66.3	66.0			
	SAMPLE IMA	GES	method	limit/base	current	history1	history2			
22	Color				no image	no image	no image			
Jun3/22	Bottom				no image	no image	no image			
	GRAPHS									
	Iron (ppm) Lead (ppm)									
	Severe			2	Courses					
	30 - E 20 - Abnormal	AJ		2						
	E 20 - Abnormal	11	10	톱1: 1	Abnemal					
		/	VL	1	5-					
	0 44	Apro/10	/19 /20		014 VI 4 VI		22/			
	Mar19/13 Jan13/14 Dec29/14	Jan 23/17	Aug9/19 Sep26/20 Jun3/22		Mar19/13 Jan13/14 Dec29/14	Apr6/16 Jan23/17 Aug9/19	Sep26/20 Jun3/22			
	Aluminum (ppm))		3	Chromium (p	pm)				
	25 - Severe			2	Saura					
	20 - Ē 15 -			2 표 1						
	10 - Abnormal		1	1	Abnormal					
	5	\sim	~		5					
	Mar19/13	Jan 23/17	Aug9/19 -		Mar19/13	Apr6/16 Jan23/17 Aug9/19	Sep26/20			
		Jan Jan	Sep			Ap Jan Au	Sep			
	Copper (ppm)		3333555555	6						
	200 - Severe			4	The second second second					
Lag	150			4 Ed 3						
	100 Abnormal 50 -			2		$-\Lambda$	~			
	0			1			VL			
	Mar19/13 Jan13/14 Dec29/14	Jan 23/17	Aug9/19 . Sep26/20 . Jun3/22 .		Mar19/13 Jan13/14 Dec29/14	Apr6/16 - Jan23/17 - Aug9/19 -	Sep26/20 Jun3/22			
	≥ ⊸ o Viscosity @ 40°C	,			≥ ⊸ ă Additives	بت ح	w ,			
	120			250	0		100505010			
8	100			200	0 - nanosana phosphoru zinc	° M	Δ			
cSt (40°C)	90 - ⁸⁰ - <u>A</u> bnormal		1	100	Alex 17		V			
C	70 - Base 60 - Abnormal			50			V			
	50	17	20	î	0 6 4 4	17 17	22			
	Mar19/13 Jan13/14 Dec29/14	дап 23/17	Aug9/19 Sep26/20 Jun3/22		Mar19/13 Jan13/14 Dec29/14	Apr6/16 Jan23/17 Aug9/19	Sep26/20 Jun3/22			
pratory ple No. Number Je Number Package	: WearCheck USA - : PCA0109293 : 06070171 : 10846848 : MOB 1	Recievec Diagnose Diagnost	d : 24 c ed : 25 c tician : Wes	Jan 2024 Jan 2024 s Davis	3 Kemp C	Quarries - Kemp	17801 Hwy Hulbert, 0 US 744 Contac			
ne report. d	contact Customer Ser	vice at 1-8	00-237-1369	1.		hulbert@k	kempstone.co			

