

# **OIL ANALYSIS REPORT**

Sample Rating Trend





Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (36 QTS)

## 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

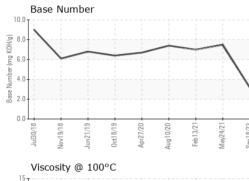
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

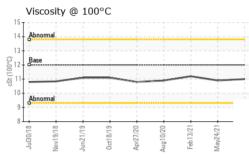
Sample NumberClient InfoPCA0098160PCA0045762PCA05182223Sample DateClient Info18 Sep 202324 May 202113 Feb 2021Machine AgemlsClient Info63660600Oil AgemlsClient InfoO00Oil AgemlsClient InfoChangedN/AN/ASample StatusLeint InfoChangedNORMALNORMALNORMALSample StatusVC MethodSo<1.0<1.0<1.0GiycolWC MethodSo<1.0<1.0<1.0GiycolWC MethodSo<1.0<1.0<1.0GiycolPpmASTM 05185m>20<1<1<1NickelppmASTM 05185m>20<1<1<1NickelppmASTM 05185m>2<1<1<1NickelppmASTM 05185m>2<1<1<1NickelppmASTM 05185m>2<1<1<1SilverppmASTM 05185m>2<1<1<1AluminumppmASTM 05185m>2<30<3LeadppmASTM 05185m>1111AntimonyppmASTM 05185m>15111AntimonyppmASTM 05185m0000CabrierppmASTM 05185m0000CabrierppmASTM 05185m	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age     mls     Client Info     636606     0     0       Oil Age     mls     Client Info     0     0     0       Oil Changed     Client Info     Changed     N/A     N/A       Sample Status     Image     MORMAL     NORMAL     NORMAL       CONTAMIINATION     method     Imit/base     current     history1     history2       Fuel     WC Method     >6.0     <1.0     <1.0     <1.0       Giycol     WC Method     >6.0     <1.0     <1.0     <1.0       WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >20     <1     <1     <1       Nickel     ppm     ASTM D5185m     >20     <1     <1     <1       Nickel     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>PCA0098160</th> <th>PCA0045762</th> <th>PCA05182223</th>	Sample Number		Client Info		PCA0098160	PCA0045762	PCA05182223
Oil Age     mls     Client Info     0     0     0       Oil Changed     Client Info     Changed     N/A     N/A       Sample Status     Imit/base     Current     NORMAL     NORMAL       CONTAMINATION     method     imit/base     current     history1     history2       Fuel     WC Method     >6.0     <1.0     <1.0     <1.0       Glycol     WC Method     >6.0     <1.0     <1.0     <1.0       Glycol     WC Method     >6.0     <1.0     <1.0     <1.0       VEAR METALS     method     imit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >20     <1     <1     <1       Nickel     ppm     ASTM D5185m     >2     0     <1     <1       Nickel     ppm     ASTM D5185m     >2     0     <1     <1       Nickel     ppm     ASTM D5185m     >330     6     8     9       Silver     ppm     ASTM D5185m	Sample Date		Client Info		18 Sep 2023	24 May 2021	13 Feb 2021
Oil Changed Sample StatusClient InfoChanged NORMALN/AN/ASample StatusImit/baseCurrentNORMALNORMALCONTAMINATIONmethodlimit/basecurrenthistory1history2FuelWC Method>6.0<1.0<1.0<1.0<1.0GlycolWC Method>6.0<1.0<1.0<1.0<1.0WEAR METALSmethodlimit/basecurrenthistory1history2IronppmASTM D5185m>100573532ChromiumppmASTM D5185m>20<1<1<1NickelppmASTM D5185m>20<1<1<1NickelppmASTM D5185m>20<1<1<1AluminumppmASTM D5185m>20<1<1<1AluminumppmASTM D5185m>25303<1<1<1AluminumppmASTM D5185m>151111<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<	Machine Age	mls	Client Info		636606	0	0
Sample Status     NORMAL     NORMAL     NORMAL     NORMAL     NORMAL       CONTAMINATION     method     limit/base     current     history1     history2       Fuel     WC Method     >6.0     <1.0	Oil Age	mls	Client Info		0	0	0
CONTAMINATION     method     limit/base     current     history1     history2       Fuel     WC Method     >6.0     <1.0     <1.0     <1.0       Glycol     WC Method     >6.0     <1.0     <1.0     <1.0       WEG     WEG     NEG     NEG     NEG     NEG       WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >100     57     35     32       Chromium     ppm     ASTM D5185m     >20     <1     <1     <1       Nickel     ppm     ASTM D5185m     >2     <1     <1     0       Silver     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >330     6     8     9       Tin     ppm     ASTM D5185m     >15     1     1     1 <td< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>Changed</th><th>N/A</th><th>N/A</th></td<>	Oil Changed		Client Info		Changed	N/A	N/A
Fuel     WC Method     >6.0     <1.0	Sample Status				NORMAL	NORMAL	NORMAL
Glycol     WC Method     NEG     NEG     NEG     NEG       WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >100     57     35     32       Chromium     ppm     ASTM D5185m     >20     <1     <1     <1       Nickel     ppm     ASTM D5185m     >2     <1     <1     0       Titanium     ppm     ASTM D5185m     >2     <1     <1     0       Silver     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >2     0     <1     1       Aluminum     ppm     ASTM D5185m     >2     0     <1     1       Aluminum     ppm     ASTM D5185m     >330     6     8     9       Tin     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m     0     0     0 <t< th=""><th>CONTAMINATI</th><th>ON</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >100     57     35     32       Chromium     ppm     ASTM D5185m     >20     <1     <1     <1       Nickel     ppm     ASTM D5185m     >20     <1     <1     0       Titanium     ppm     ASTM D5185m     >2     <1     <1     0       Silver     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >330     6     8     9       Tin     ppm     ASTM D5185m     >330     6     8     9       Tin     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0	Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Iron     ppm     ASTM D5185m     >100     57     35     32       Chromium     ppm     ASTM D5185m     >20     <1     <1     <1       Nickel     ppm     ASTM D5185m     >2     <1     <1     0       Titanium     ppm     ASTM D5185m     >2     0     <1     <1       Silver     ppm     ASTM D5185m     >2     0     <1     <1       Aluminum     ppm     ASTM D5185m     >2     0     <1     <1       Lead     ppm     ASTM D5185m     >25     3     0     3     3       Lead     ppm     ASTM D5185m     >40     2     2     2     2       Copper     ppm     ASTM D5185m     >330     6     8     9     1       Antimony     ppm     ASTM D5185m     >1     1     1     1       Antimony     ppm     ASTM D5185m     >0     0     0     0       Vanadium     ppm     ASTM D5185m	Glycol		WC Method		NEG	NEG	NEG
Chromium     ppm     ASTM D5185m     >20     <1	WEAR METALS	6	method	limit/base	current	history1	history2
Chromium     ppm     ASTM D5185m     >20     <1	Iron	ppm	ASTM D5185m	>100	57	35	32
Nickel     ppm     ASTM D5185m     >2     <1					-		
Titanium     ppm     ASTM D5185m     0     0     <1							
Silver     ppm     ASTM D5185m     >2     0     <1							
Aluminum     ppm     ASTM D5185m     >25     3     0     3       Lead     ppm     ASTM D5185m     >40     2     2     2       Copper     ppm     ASTM D5185m     >330     6     8     9       Tin     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m     0     0     0     0       Vanadium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     0     2     2       Barium     ppm     ASTM D5185m     0     64     60     60       Magnesium     ppm     ASTM D5185m     950     896     960     9	Silver			>2			
Lead     ppm     ASTM D5185m     >40     2     2     2       Copper     ppm     ASTM D5185m     >330     6     8     9       Tin     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m     O     0     0     0       Vanadium     ppm     ASTM D5185m     O     0     0     0       Cadmium     ppm     ASTM D5185m     O     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     2     0     2     2     2       Boron     ppm     ASTM D5185m     0     0     0     0     0     0       Molybdenum     ppm     ASTM D5185m     0     <1	Aluminum		ASTM D5185m	>25		0	
Copper     ppm     ASTM D5185m     >330     6     8     9       Tin     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m     0     0     0     0       Vanadium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     0     2     2       Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     0     64     60     60       Magnesium     ppm     ASTM D5185m     950     896     960     963       Calcium     ppm     ASTM D5185m     1050     1136     1035							
Tin     ppm     ASTM D5185m     >15     1     1     1       Antimony     ppm     ASTM D5185m      0     0       Vanadium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     0     2     2       Barium     ppm     ASTM D5185m     0     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     64     60     60       Magnesium     ppm     ASTM D5185m     950     896     960     963       Calcium     ppm     ASTM D5185m     955     1038     992     1045       Zinc     ppm     ASTM D5185m     950     1038     992 <th>Copper</th> <th></th> <th>ASTM D5185m</th> <th>&gt;330</th> <th>6</th> <th>8</th> <th>9</th>	Copper		ASTM D5185m	>330	6	8	9
Antimony     ppm     ASTM D5185m      0     0       Vanadium     ppm     ASTM D5185m     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0       Cadmium     ppm     ASTM D5185m     0     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     0     2     2       Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     64     60     60       Magnesium     ppm     ASTM D5185m     950     896     960     963       Calcium     ppm     ASTM D5185m     1050     1136     1035     1123       Phosphorus     ppm     ASTM D5185m     995     1038     992     1045       Zinc     ppm     ASTM D5185m     1180     1269     1179 <th></th> <th></th> <th>ASTM D5185m</th> <th>&gt;15</th> <th>1</th> <th>1</th> <th>1</th>			ASTM D5185m	>15	1	1	1
Cadmium     ppm     ASTM D5185m     0     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     0     2     2       Barium     ppm     ASTM D5185m     0     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     64     60     60       Magnesium     ppm     ASTM D5185m     0     <1	Antimony		ASTM D5185m			0	0
CadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m2022BariumppmASTM D5185m0000MolybdenumppmASTM D5185m50646060ManganeseppmASTM D5185m0<1<1<1MagnesiumppmASTM D5185m950896960963CalciumppmASTM D5185m99510389921045PhosphorusppmASTM D5185m1180126911791245SulfurppmASTM D5185m2600270322782473	Vanadium	ppm	ASTM D5185m		0	0	0
Boron     ppm     ASTM D5185m     2     0     2     2       Barium     ppm     ASTM D5185m     0     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     64     60     60       Manganese     ppm     ASTM D5185m     0     <1     <1     <1       Magnesium     ppm     ASTM D5185m     950     896     960     963       Calcium     ppm     ASTM D5185m     1050     1136     1035     1123       Phosphorus     ppm     ASTM D5185m     995     1038     992     1045       Zinc     ppm     ASTM D5185m     1180     1269     1179     1245       Sulfur     ppm     ASTM D5185m     2600     2703     2278     2473	Cadmium		ASTM D5185m		0	0	0
Barium     ppm     ASTM D5185m     0     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     64     60     60       Manganese     ppm     ASTM D5185m     0     <1     <1     <1       Magnesium     ppm     ASTM D5185m     950     896     960     963       Calcium     ppm     ASTM D5185m     1050     1136     1035     1123       Phosphorus     ppm     ASTM D5185m     995     1038     992     1045       Zinc     ppm     ASTM D5185m     1180     1269     1179     1245       Sulfur     ppm     ASTM D5185m     2600     2703     2278     2473	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum     ppm     ASTM D5185m     50     64     60     60       Manganese     ppm     ASTM D5185m     0     <1     <1     <1       Magnesium     ppm     ASTM D5185m     950     896     960     963       Calcium     ppm     ASTM D5185m     1050     1136     1035     1123       Phosphorus     ppm     ASTM D5185m     995     1038     992     1045       Zinc     ppm     ASTM D5185m     1180     1269     1179     1245       Sulfur     ppm     ASTM D5185m     2600     2703     2278     2473	Boron	ppm	ASTM D5185m	2	0	2	2
Manganese     ppm     ASTM D5185m     0     <1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium     ppm     ASTM D5185m     950     896     960     963       Calcium     ppm     ASTM D5185m     1050     1136     1035     1123       Phosphorus     ppm     ASTM D5185m     995     1038     992     1045       Zinc     ppm     ASTM D5185m     1180     1269     1179     1245       Sulfur     ppm     ASTM D5185m     2600 <b>2703</b> 2278     2473	Molybdenum	ppm	ASTM D5185m	50	64	60	60
Calcium     ppm     ASTM D5185m     1050     1136     1035     1123       Phosphorus     ppm     ASTM D5185m     995     1038     992     1045       Zinc     ppm     ASTM D5185m     1180     1269     1179     1245       Sulfur     ppm     ASTM D5185m     2600 <b>2703</b> 2278     2473	-	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus     ppm     ASTM D5185m     995     1038     992     1045       Zinc     ppm     ASTM D5185m     1180     1269     1179     1245       Sulfur     ppm     ASTM D5185m     2600     2703     2278     2473	Magnesium	ppm	ASTM D5185m	950	896	960	963
Zinc     ppm     ASTM D5185m     1180     1269     1179     1245       Sulfur     ppm     ASTM D5185m     2600     2703     2278     2473	Calcium	ppm	ASTM D5185m	1050	1136	1035	1123
Sulfur     ppm     ASTM D5185m     2600     2703     2278     2473	Phosphorus	ppm	ASTM D5185m	995	1038	992	1045
	Zinc	ppm	ASTM D5185m	1180	1269	1179	1245
	Sulfur	ppm	ASTM D5185m	2600	2703	2278	2473
CONTAMINANTS method limit/base current history1 history2	CONTAMINAN	ГS	method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m >25 7 2 5	Silicon	ppm	ASTM D5185m	>25	7	2	5
Sodium     ppm     ASTM D5185m     23     6     5	Sodium	ppm	ASTM D5185m		23	6	5
Potassium     ppm     ASTM D5185m     >20     3     1     2	Potassium	ppm	ASTM D5185m	>20	3	1	2
INFRA-RED method limit/base current history1 history2	INFRA-RED		method	limit/base	current	history1	history2
Soot % % *ASTM D7844 >3 0.6 0.4 0.5	Soot %	%	*ASTM D7844	>3	0.6	0.4	0.5
Nitration     Abs/cm     *ASTM D7624     >20     13.7     10.5     10	Nitration		*ASTM D7624	>20	13.7	10.5	10
Sulfation     Abs/.1mm     *ASTM D7415     >30     26.4     22.7     22.4	Sulfation	Abs/.1mm	*ASTM D7415	>30	26.4	22.7	22.4
FLUID DEGRADATION method limit/base current history1 history2	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	27.3	19.2	18.2



# **OIL ANALYSIS REPORT**

VISUAL





	(3-00 U) XS <sup>2</sup>	Viscos	_	0ct18/19 Apr27/20 Apr27/20		Heb 13/21 - Heb 13	10.0 (0),8.0 (0),00 (0)	Base Nur		0ct18/19 Apr27/20	Aug10/20	Feb13/21	
	(J0-001) 1359	0 81/0 15 14 13	sity @ 10		Aug10/2	Han 18/ May 24	10.0	Base Nur	mber			-	
		0 81/000 15 14 Abnomi	sity @ 10		Aug10/2	Feb 13. May24, Sen 18/	10.0	Base Nur	nber				
		U RI/OEInr Viscos			Aug10/2	reb 13, May24, Sep18/		Base Nur	nber				
		0	Jun21/19	Oct18/19 Apr27/20	Aug10/2	reb 13/ May24, Sep18/							
		0	And a second second		0 1	21 21							
		50					_						
		_	copper lead										
		Non-f			Augì	Mayi Sep 1							
		30/18	21/19	18/19 27/20	10/20	724/21	-						
		20											
	шаа												
Feb13/21		50-	iron chromium nickel			/							
		Ferro											
				cSt	ASTI	vi D445 12.0	JÜ	11.0		10.9		11.2	
									nt		y1	histor	y2
								NEG		NEG		NEG	
H 2	0		ied Wate						-		-		L
Feb 13/2 1ay24/2	iep 18/2;		ance										
								NONE		NONE		NONE	
		Debris						NONE		NONE		NONE	
		-	ale										
	Feb13/21 -	Fdb13/21	Yellow Precipit Silt Debris Sand/D Appear. Odor Emulsif Free W FLUI Visc @ GRA Ferror	Debris Sand/Dirt Appearance Odor Emulsified Wate Free Water FLUID PRO Visc @ 100°C GRAPHS Ferrous Alloys Ferrous Alloys Non-ferrous M	Yellow Metal sca Precipitate sca Silt sca Debris sca Sand/Dirt sca Appearance sca Odor sca Emulsified Water sca Free Water sca Free Water sca Free Water sca Free Water sca Sand Dirt sca Appearance sca Odor sca Emulsified Water sca Free Water sca Sand Dirt sca Sand Dirt sca Appearance sca Odor sca Free Water sca Sand Dirt sca Sand Dirt sca Sand Dirt sca Sand Dirt sca Pree Water sca Sand Dirt	Yellow Metal scalar *Visi Precipitate scalar *Visi Silt scalar *Visi Debris scalar *Visi Sand/Dirt scalar *Visi Sand/Dirt scalar *Visi Appearance scalar *Visi Emulsified Water scalar *Visi Free Water scalar *Visi Non-ferrous Alloys	Yellow Metal Precipitate Scalar Visual NO Silt Scalar Visual NO Silt Scalar Visual NO Debris Scalar Visual NO Sand/Dirt Scalar Visual NO Appearance Scalar Visual NO Odor Scalar Visual NO Odor Scalar Visual NO Odor Emulsified Water Scalar Visual NO Emulsified Water Scalar Visual FLUID PROPERTIES Method Im Visc @ 100°C CSt ASTM D445 12.0 GRAPHS Ferrous Alloys Non-ferrous Metals Non-ferrous Metals Scalar Visual Non-ferrous Metals Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Visual Scalar Scalar Visual Scalar Scalar Scalar Visual Scalar Scalar Visual Scalar Scalar Visual Scalar	Yellow Metal scalar 'Visual NONE Precipitate scalar 'Visual NONE Silt scalar 'Visual NONE Sand/Dirt scalar 'Visual NONE Sand/Dirt scalar 'Visual NONE Appearance scalar 'Visual NORML Odor scalar 'Visual NORML Odor scalar 'Visual NORML Emulsified Water scalar 'Visual Odor Free Water scalar 'Visual Odor Free Water scalar 'Visual Odor Free Water scalar 'Visual Odor Ferrous Alloys Ferrous Alloys Mon-ferrous Metals Mon-ferrous Metals Mon-ferrous Metals Mon-ferrous Metals Solution of the stale of	Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NO	Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Prece Water scalar *Visual NORML NORML Visual >0.2 NEG Free Water scalar *Visual NORML Visual NORML NORML Odor scalar *Visual NORML NORM	Yellow Metal scalar Visual NONE NONE NONE Precipitate scalar Visual NONE NONE NONE Silt scalar Visual NONE NONE NONE Sand/Dirt scalar Visual NONE NONE NONE Sand/Dirt scalar Visual NONE NONE NONE Appearance scalar Visual NORML NORML NORML Odor scalar Visual NORML NORML NORML Odor scalar Visual NORM NORM NORM Emulsified Water scalar Visual NORM NORM NORM Free Water scalar Visual NORM NORM NORM Visc @ 100°C cSt ASTM D445 12.00 11.0 10.9 GRAPHS Ferrous Alloys Non-ferrous Metals	Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NO	Vellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Sitt scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORM Cotor scalar *Visual NORML NORML NORML NORM Emulsified Water scalar *Visual NORML NORML NORML NORM Emulsified Water scalar *Visual NORML NORML NORM Emulsified Water scalar *Visual NORM NORML NORM Emulsified Water scalar *Visual NORM NORM NORM Emulsified Water scalar *Visual NORM NORM NORM NORM Emulsified Water scalar *Visual NORM NORM NORM NORM Emulsified Water scalar *Visual NORM NORM NORM NORM NORM NORM Emulsified Water scalar *Visual NORM NORM NORM NORM NORM NORM Emulsified Water scalar *Visual NORM NORM NORM NORM NORM NORM Emulsified Water scalar *Visual NORM NORM NORM NORM NORM NORM NORM NORM

\* - 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)

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