

OIL ANALYSIS REPORT

Sample Rating Trend



MIXERS [MIXERS] M220 Component

Diesel Engine KENDALL 15W40 (--- GAL)

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.

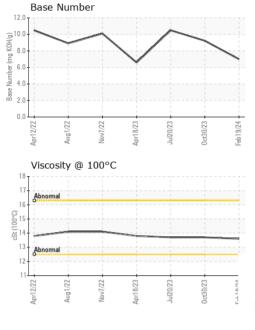
Fluid Condition

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

SAMPLE INFORMATION method imitibase current history1 history2 Sample Number Client Info IP Feb 2024 30 Oct 2023 20 Jul 2023 Machine Age hrs Client Info 19 Feb 2024 30 Oct 2023 20 Jul 2023 Oll Age hrs Client Info 5385 4737 3126 Oll Age hrs Client Info 600 600 600 Oll Age hrs Client Info Changed Changed Changed Sample Status nethod imit/base current history1 history2 Vater WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0 2 NEG NEG Vickel ppm ASTM 05185m >100 3 7 7 Chromium ppm ASTM 05185m >20 2 1 2 Iron ppm ASTM 05185m >3 0 0 0 Iron <th></th> <th></th> <th>Apr2022</th> <th>Aug2022 Nov2022</th> <th>Apr2023 Jul2023 Oct2023</th> <th>Feb2024</th> <th></th>			Apr2022	Aug2022 Nov2022	Apr2023 Jul2023 Oct2023	Feb2024	
Sample Date Client Info 19 Feb 2024 30 Oct 2023 20 Jul 2023 Machine Age hrs Client Info 5385 4737 3126 Oil Age hrs Client Info 600 600 600 Oil Changed Client Info 600 600 600 600 Sample Status Init/base current NORMAL NORMAL NORMAL NORMAL Fuel WC Method >5 <1.0 <1.0 <1.0 <1.0 Water WC Method >5 <1.0 <1.0 <1.0 <1.0 Wear WC Method >5 <1.0 <1.0 <1.0 <1.0 Water WC Method >5 <1.0 <1.0 <1.0 <1.0 Wear WC Method >5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <th>SAMPLE INFORI</th> <th>MATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 5385 4737 3126 Oil Age hrs Client Info 600 60	Sample Number		Client Info		PCA0109790	LP0000668	LP0000191
Oil Age Inrs Client Info 600 600 600 600 Oil Changed Client Info Changed Changed <th>Sample Date</th> <th></th> <th>Client Info</th> <th></th> <th>19 Feb 2024</th> <th>30 Oct 2023</th> <th>20 Jul 2023</th>	Sample Date		Client Info		19 Feb 2024	30 Oct 2023	20 Jul 2023
Oli Changed Sample StatusClient InfoChanged NORMALChanged NORMALChanged NORMALChanged NORMALChanged NORMALCONTAMINATIONmethodimit/basecurrenthistory1history2FuelWC Method>5.5<1.0<1.0<1.0WaterWC Method>0.2NEGNEGNEGGlycolWC Method>0.2NEGNEGNEGWEAR METALSmethodimit/basecurrenthistory1history2IronppmASTM D5185m>100377ChromiumppmASTM D5185m>20<10<1NickelppmASTM D5185m>20212LeadppmASTM D5185m>3000<1AluminumppmASTM D5185m>40000CopperppmASTM D5185m>40000CadmiumppmASTM D5185m>5110<1VanadiumppmASTM D5185m0000ADDITIVESmethodimit/basecurrenthistory1history2BoronppmASTM D5185m0.6000ADDITIVESmethodimit/basecurrenthistory1history2BariumppmASTM D5185m0.6000ADDITIVESmethodimit/basecurrenthistory1history2Barium <td< th=""><th>Machine Age</th><th>hrs</th><th>Client Info</th><th></th><th>5385</th><th>4737</th><th>3126</th></td<>	Machine Age	hrs	Client Info		5385	4737	3126
Sample Status NORMAL NORMAL NORMAL NORMAL NORMAL CONTAMINATION method imit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Glycol WC Method >0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 <1 Nockel ppm ASTM D5185m >20 <1 1 1 Silver ppm ASTM D5185m >30 0 0 0 Auminum ppm ASTM D5185m >20 2 1 2 Lead ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >330 <1 1 1 Vanadium	Oil Age	hrs	Client Info		600	600	600
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Glycol WC Method S0.2 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 <1 Nickel ppm ASTM D5185m >20 <1 0 <1 Silver ppm ASTM D5185m >20 2 1 2 Lead ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >30 1 <1 <1 Tin ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >15 <1 0 <1 Vanadiu	Oil Changed		Client Info		Changed	Changed	Changed
Fuel WC Method >5 <1.0	Sample Status				NORMAL	NORMAL	NORMAL
Water WC Method >0.2 NEG NEG NEG NEG Glycol WC Method imit/base current history1 history2 Iron ppm ASTM D5185m >100 3 7 7 Chromium ppm ASTM D5185m >20 <1 0 <1 Nickel ppm ASTM D5185m >4 0 0 <1 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >20 2 1 2 2 Lead ppm ASTM D5185m >40 0 0 0 0 Copper ppm ASTM D5185m >40 0 0 0 0 0 Cadmium ppm ASTM D5185m >40 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 0 0	CONTAMINAT	ION	method	limit/base	current	history1	history2
Glycol WC Method NEG NEG NEG NEG WeAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 <1 Nickel ppm ASTM D5185m >20 <1 0 <1 Nickel ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >20 2 1 2 Lead ppm ASTM D5185m >20 2 1 <1 <1 Tin ppm ASTM D5185m >20 2 1 <2 Lead ppm ASTM D5185m >20 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0.6 0 0 0 Vanadium ppm ASTM D5185m <th>Fuel</th> <th></th> <th>WC Method</th> <th>>5</th> <th><1.0</th> <th><1.0</th> <th><1.0</th>	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 3 7 7 Chromium ppm ASTM D5185m >20 <1 0 <1 Nickel ppm ASTM D5185m >20 <1 0 <1 Titanium ppm ASTM D5185m >3 0 0 <1 Silver ppm ASTM D5185m >20 2 1 2 <1 2 <1 2 <1 2 <1 1 <1 1 1 <1 1 <1 1 <1 1 <1 1 2 2 1 2 <1 2 2 1 2 1 2 1 2 1 <th>Water</th> <th></th> <th>WC Method</th> <th>>0.2</th> <th>NEG</th> <th>NEG</th> <th>NEG</th>	Water		WC Method	>0.2	NEG	NEG	NEG
Iron ppm ASTM D5185m >100 3 7 7 Chromium ppm ASTM D5185m >20 <1 0 <1 Nickel ppm ASTM D5185m >4 0 0 <1 Silver ppm ASTM D5185m >3 0 0 0 0 Aluminum ppm ASTM D5185m >3 0 0 0 0 Aluminum ppm ASTM D5185m >3 0 0 0 0 Copper ppm ASTM D5185m >330 <1 <1 <1 <1 Tin ppm ASTM D5185m >330 <1 <1 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 0 0 Cadmium ppm ASTM D5185m 0.6 0 0 0 0 Boron ppm ASTM D5185m 0.6 0 0 0 0 <t< th=""><th>Glycol</th><th></th><th>WC Method</th><th></th><th>NEG</th><th>NEG</th><th>NEG</th></t<>	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >20 <1	Iron	ppm	ASTM D5185m	>100	3	7	7
Nickel ppm ASTM D5185m >4 0 0 <1	Chromium		ASTM D5185m	>20	<1	0	<1
Titanium ppm ASTM D5185m <1	Nickel		ASTM D5185m	>4	0	0	<1
Aluminum ppm ASTM D5185m >20 2 1 2 Lead ppm ASTM D5185m >40 0 0 0 Copper ppm ASTM D5185m >330 <1 <1 <1 Tin ppm ASTM D5185m >15 <1 0 <1 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 6.3 48 32 40 Barium ppm ASTM D5185m 0.6 0 0 0 Marganese ppm ASTM D5185m 0.4 78 77 80 Marganese ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 1514 1194	Titanium		ASTM D5185m		<1	1	1
Lead ppm ASTM D5185m >40 0 0 0 Copper ppm ASTM D5185m >330 <1 <1 <1 Tin ppm ASTM D5185m >15 <1 0 <1 Vanadium ppm ASTM D5185m >15 <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0.6 0 0 0 Malganese ppm ASTM D5185m 0.4 78 77 80 Marganese ppm ASTM D5185m 0.4 78 77 80 Calcium ppm ASTM D5185m 0.4 78 77 80 Phosphorus ppm ASTM D5185m 277 109 199 303 Sulfur ppm ASTM D5185m 2592 3577	Silver	ppm	ASTM D5185m	>3	0	0	0
Copper ppm ASTM D5185m >330 <1	Aluminum	ppm	ASTM D5185m	>20	2	1	2
Tin ppm ASTM D5185m >15 <1	Lead	ppm	ASTM D5185m	>40	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 6.3 48 32 40 Barium ppm ASTM D5185m 0.6 0 0 0 Maganese ppm ASTM D5185m 0.6 0 0 0 Marganese ppm ASTM D5185m 0.4 78 77 80 Maganesum ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 277 109 199 303 Sulfur ppm ASTM D5185m 2592 357	Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 6.3 48 32 40 Barium ppm ASTM D5185m 0.6 0 0 0 Magnesium ppm ASTM D5185m 0.4 78 77 80 Magnesium ppm ASTM D5185m 0.4 78 77 80 Magnesium ppm ASTM D5185m 0.4 78 77 80 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 273 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577	Tin	ppm	ASTM D5185m	>15	<1	0	<1
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 6.3 48 32 40 Barium ppm ASTM D5185m 0.6 0 0 0 Molybdenum ppm ASTM D5185m 0.4 78 77 80 Manganese ppm ASTM D5185m 0.4 78 77 80 Magnesium ppm ASTM D5185m 0.4 78 77 80 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 634 1012 971 1045 Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 25 4 3 3 Sodium ppm ASTM D5185m >20	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 6.3 48 32 40 Barium ppm ASTM D5185m 0.6 0 0 0 Molybdenum ppm ASTM D5185m 0.4 78 77 80 Manganese ppm ASTM D5185m 0.4 78 77 80 Magnesium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 1514 1994 1824 2006 Phosphorus ppm ASTM D5185m 1514 1994 1824 2006 Phosphorus ppm ASTM D5185m 634 1012 971 1045 Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577 3342 4392 Sodium ppm ASTM D5185m<	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0.6 0 0 0 Molybdenum ppm ASTM D5185m 0.4 78 77 80 Manganese ppm ASTM D5185m 0.4 78 77 80 Magnesium ppm ASTM D5185m 0.4 78 77 80 Calcium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 1514 1994 1824 2006 Phosphorus ppm ASTM D5185m 634 1012 971 1045 Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577 3342 4392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 <1 <1 2 INFRA-RED method limit/base	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0.4 78 77 80 Manganese ppm ASTM D5185m <<1 0 <1 Magnesium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 1514 1994 1824 2006 Phosphorus ppm ASTM D5185m 634 1012 971 1045 Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577 3342 4392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >20 <1 <1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3	Boron	ppm	ASTM D5185m	6.3	48	32	40
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m	0.6	0	0	0
Magnesium ppm ASTM D5185m 277 109 199 303 Calcium ppm ASTM D5185m 1514 1994 1824 2006 Phosphorus ppm ASTM D5185m 1514 1994 1824 2006 Phosphorus ppm ASTM D5185m 634 1012 971 1045 Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577 3342 4392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >20 <1 <1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.7 0.6 Nitration Abs/.1mm *ASTM D74	Molybdenum	ppm	ASTM D5185m	0.4	78	77	80
Calcium ppm ASTM D5185m 1514 1994 1824 2006 Phosphorus ppm ASTM D5185m 634 1012 971 1045 Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577 3342 4392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >20 <11 <11 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.7 0.6 Nitration Abs/cm *ASTM D7624 >20 8.4 8.6 8.6 Sulfation Abs/.1mm *ASTM D7624 >20 8.4 8.6 8.6 Sulfation Abs/.1mm *AST	Manganese	ppm	ASTM D5185m		<1	0	<1
Phosphorus ppm ASTM D5185m 634 1012 971 1045 Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577 3342 4392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >25 4 3 3 Potassium ppm ASTM D5185m >20 <11	Magnesium	ppm	ASTM D5185m	277	109	199	303
Zinc ppm ASTM D5185m 743 1187 1175 1295 Sulfur ppm ASTM D5185m 2592 3577 3342 4392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >20 <1 <1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844<>3 0.5 0.7 0.6 Nitration Abs/cm *ASTM D7624<>20 8.4 8.6 8.6 Sulfation Abs/.1mm *ASTM D7415<>30 18.5 18.8 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414<>25 13.4 14.0	Calcium	ppm	ASTM D5185m	1514	1994	1824	2006
Sulfur ppm ASTM D5185m 2592 3577 3342 4392 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >25 4 3 3 Potassium ppm ASTM D5185m >20 <1	Phosphorus	ppm	ASTM D5185m	634	1012	971	1045
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m<>25433SodiumppmASTM D5185m232PotassiumppmASTM D5185m20<1<12INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>30.50.70.6NitrationAbs/cm*ASTM D7624>208.48.68.6SulfationAbs/.1mm*ASTM D7415>3018.518.819.2FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2513.414.014.0	Zinc	ppm	ASTM D5185m	743	1187	1175	1295
Silicon ppm ASTM D5185m >25 4 3 3 Sodium ppm ASTM D5185m >20 2 3 2 Potassium ppm ASTM D5185m >20 <1	Sulfur	ppm	ASTM D5185m	2592	3577	3342	4392
Sodium ppm ASTM D5185m 2 3 2 Potassium ppm ASTM D5185m<>20 <1 <1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844<>3 0.5 0.7 0.6 Nitration Abs/cm *ASTM D7624<>20 8.4 8.6 8.6 Sulfation Abs/.1mm *ASTM D7415<>30 18.5 18.8 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414<>25 13.4 14.0 14.0	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1	Silicon	ppm	ASTM D5185m	>25	4	3	3
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.7 0.6 Nitration Abs/cm *ASTM D7624 >20 8.4 8.6 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.5 18.8 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.4 14.0 14.0	Sodium	ppm	ASTM D5185m		2	3	2
Soot % % *ASTM D7844 >3 0.5 0.7 0.6 Nitration Abs/cm *ASTM D7624 >20 8.4 8.6 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.5 18.8 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.4 14.0 14.0	Potassium	ppm	ASTM D5185m	>20	<1	<1	2
Nitration Abs/cm *ASTM D7624 >20 8.4 8.6 8.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.5 18.8 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.4 14.0 14.0	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 18.5 18.8 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.4 14.0 14.0	Soot %	%	*ASTM D7844	>3	0.5	0.7	0.6
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.4 14.0 14.0	Nitration	Abs/cm	*ASTM D7624	>20	8.4	8.6	8.6
Oxidation Abs/.1mm *ASTM D7414 >25 13.4 14.0 14.0	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.5	18.8	19.2
	FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.4	14.0	14.0
		mg KOH/g			7.0	9.23	10.50



OIL ANALYSIS REPORT



Laboratory Sample No. Lab Number Unique Number Test Package To discuss this sample report, * - Denotes test methods that		: PCA0109790 : 06105095 : 10903325 : MOB 2	Rece Teste Diagr	ed : 01 Mar 2024 nosed : 01 Mar 2024 - Wes Davis 800-237-1369.			CONSTRUCTION SERVICES 2420 BOSTON RD WILBRAHAM, MA US 01095 Contact: Michael Dupuis mdupuis@cs-ma.us T: (413)733-6331		
		Apr12/22	Apr18/23	Jul20/23 0ct30/23	Feb19/24		Nov7/22 +	Jul20/23 + Oct30/23 + Feb 19/24 +	
		현 14 정 12			Base Number (mg KOH(g) 9 8 8	.0			
		16 20 14 Abnormal Abnormal			er (mg KOF	.0-	\sim		
		¹⁸) 半10	.0 T		~	
		لَّةٍ ≷ً Viscosity @ 100°		Jul Oct	Feb	Base Numbe			
		Apr12/22 Aug1/22	Apr18/23 -	Jul20/23	Feb19/24	Apr12/22	Nov7/22 - Apr18/23 -	Jul20/23	
		100-			2	0			
		톮 200 -			ud d	0 - Abnormal			
		300 Severe			6	0			
		Copper (ppm)				Silicon (ppm)			
		Apr12/22 Aug1/22 Nov7/22	Apr18/23	Jul20/23 0ct30/23	Feb19/24	Apr12/22 Aug1/22		Jui20/23 0ct30/23	
			23	23		0	23	23	
						0 - Abnormal			
		E 30 Abnormal			mqq	0 - Abnormal			
		50 40 - Severe				0 Severe			
		Aluminum (ppm)				Chromium (p			
		Apr12/22 Aug1/22 Nov7/22	Apr18/23	Jul20/23 0ct30/23	Feb 19/24	Apr12/22 Aug1/22	Nov7/22 - Apr18/23	Jul20/23 0ct30/23	
			23	23		0	22	23	
		50 - Abnormal			1	0 - Abnormal			
Apr18/23 Jul20/23	0ct30/23	E 150 100 - Abnormal			udd				
/23		250 200 Severe				0 0 0			
		Iron (ppm)				Lead (ppm)			
		GRAPHS	001		, 	10.0	10.7	10.7	
		FLUID PROPE Visc @ 100°C	cSt	method ASTM D445	limit/base	current 13.6	history1 13.7	history2 13.7	
			scalar		lippit/boos				
		Emulsified Water Free Water	scalar	*Visual *Visual	>0.2	NEG NEG	NEG NEG	NEG NEG	
Apr1 Jul2	Oct3 Feb1	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
Apr18/23 - Jul20/23 -	Oct30/23 + Feb19/24 +	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
		Debris Sand/Dirt	scalar scalar	*Visual *Visual	NONE	NONE	NONE	NONE	
		Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
~		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
~		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	