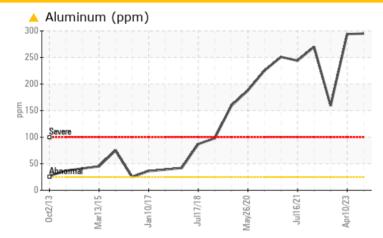


PROBLEM SUMMARY

Area **LINE 6** Machine Id [LINE 6] L6 WRAPPER 15 L6 WRAPPER 15 Component Gearbox Fluid NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS								
Sample Status				MARGINAL	ABNORMAL	ABNORMAL		
Aluminum	ppm	ASTM D5185m	>25	<u> </u>	2 94	1 59		

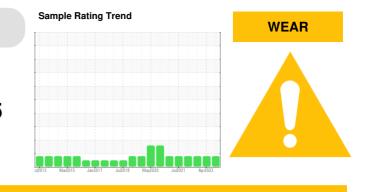
Customer Id: HERHER Sample No.: PCA0106451 Lab Number: 06009752 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>



RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

10 Apr 2023 Diag: Doug Bogart



No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



20 Mar 2022 Diag: Don Baldridge

WEAR

20 Mar 2022 Diag: Don Baidri

No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



11 Mar 2022 Diag: Don Baldridge



No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Area LINE 6 Machine Id [LINE 6] L6 WRAPPER 15 L6 WRAPPER 15 Component

Gearbox Fluid

NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

🔺 Wear

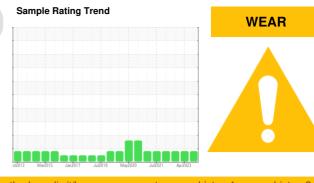
The aluminum level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

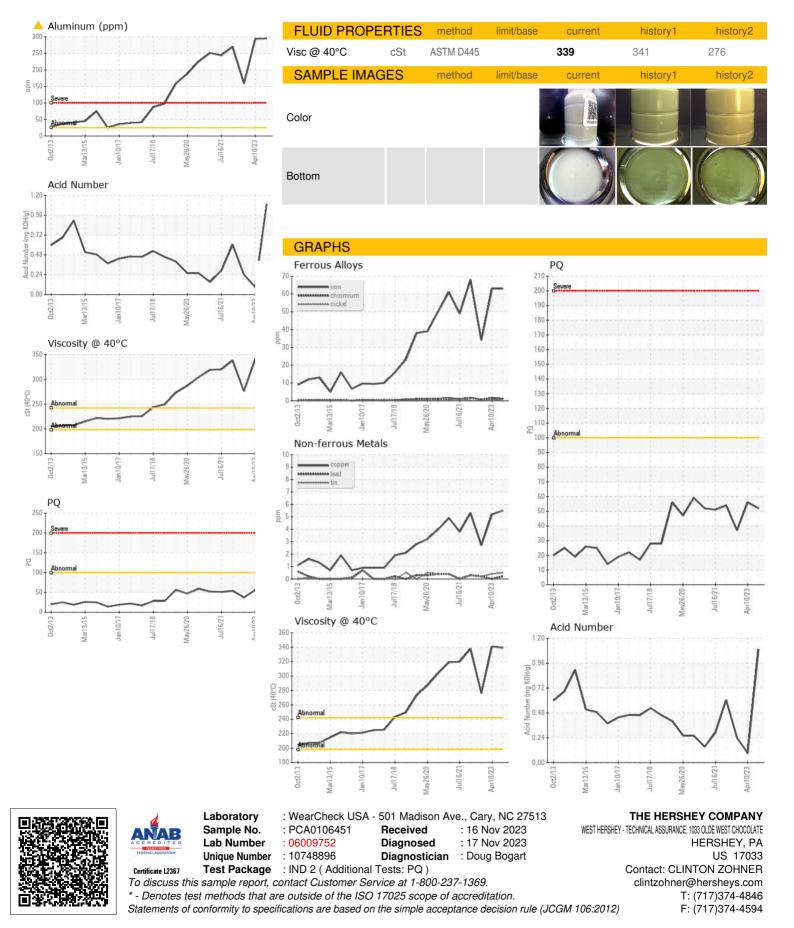
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Sample Date Client Info 27 Oct 2023 10 Apr 2023 20 Mar 2022 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 0 Sample Status Client Info N/A N/A N/A ABNORMAL ABNORMAL WEAR METALS method Imit/base current history1 history2 PQ ASTM D5185m >15 1 2 -1 Kinon ppm ASTM D5185m >15 0 -1 0 Cironium ppm ASTM D5185m >15 0 -1	SAMPLE INFORM	/IATION	method	limit/base	current	history1	history2
Machine AgehisClient Info000Oil AgagehisClient InfoN/AN/ASample StatusIClient InfoN/AABNORMALABNORMALWEAR METALSmethodImit/basecurrenthistory1history2PQASTM DB184525637fronppmASTM D5185>200636334ChromiumppmASTM D5185>1512-1NickelppmASTM D5185>150-10NickelppmASTM D5185>2063344159NickelppmASTM D5185>10-1-1-1NickelppmASTM D5185>206131-1CopperppmASTM D5185>2061-1-1CadmiumppmASTM D5185>2061-1-1VanadiumppmASTM D51852061-1-1RadmiumppmASTM D51852061-1-1MagnaeseppmASTM D518500-1-1MagnaeseppmASTM D51851016100MagnaeseppmASTM D51851112-1-1MagnaeseppmASTM D5185529627574-1MagnaeseppmASTM D5185-20622421MagnaeseppmASTM D5185-20<	Sample Number		Client Info		PCA0106451	PCA0088981	PCA0058849
Oil Age hrs Client Info 0 0 0 Sample Status Client Info N/A N/A N/A N/A Sample Status Client Info N/A MARGINAL ABNORMAL ABNORMAL WEAR METALS method limit/base current history1 history2 PQ ASTM 05185m >200 63 63 34 Chromium ppm ASTM 05185m >15 1 2 <1	Sample Date		Client Info		27 Oct 2023	10 Apr 2023	20 Mar 2022
Oli Changed Client Info N/A N/A N/A Sample Status Image Status Image Status N/A ABNORMAL WEAR METALS method limit/base current history1 Mistory2 PQ ASTM 05185m >15 1 2 <1	Machine Age	hrs	Client Info		0	0	0
Oil ChangedClient InfoN/AN/AN/AABNORMALSample StatusIIMARGINALABNORMALABNORMALABNORMALWEAR METAL>nethodlimit/basecurrenthistory1Mistory2PQASTM 05185m>1512<1	Oil Age	hrs	Client Info		0	0	0
Sample Status method Imit/base current ABNORMAL ABNORMAL VEAR METALS method limit/base current history1 history2 PQ ASTM D8184 52 56 37 Iron ppm ASTM D5185m >15 1 2 <1	-		Client Info			N/A	N/A
PQ ASTM D8184 52 56 37 Iron ppm ASTM D5185 >200 63 63 34 Chromium ppm ASTM D5185 >15 0 <1	Sample Status				MARGINAL	ABNORMAL	ABNORMAL
IronppmASTM D5185m>20063636334ChromiumppmASTM D5185m>1512<1	WEAR METALS	S	method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >15 1 2 <1 Nickel ppm ASTM D5185m >15 0 <1	PQ		ASTM D8184		52	56	37
Nickel ppm ASTM D5185m >15 0 <1 0 Titanium ppm ASTM D5185m 0 0 <1	Iron	ppm	ASTM D5185m	>200	63	63	34
Nickel ppm ASTM D5185m >15 0 <1 0 Titanium ppm ASTM D5185m 0 0 <1	Chromium			>15	1	2	<1
TitaniumppmASTM D5185m<1<1<1<1SilverppmASTM D5185m>25295294159LeadppmASTM D5185m>200653CopperppmASTM D5185m>200653TinppmASTM D5185m>200653CopperppmASTM D5185m>200670CadmiumppmASTM D5185m>200670CadmiumppmASTM D5185m<1	Nickel			>15	0	<1	
Silver ppm ASTM D5185m 0 0 <1 Aluminum ppm ASTM D5185m<>25 295 294 ▲ 159 Lead ppm ASTM D5185m<>200 6 5 3 Tin ppm ASTM D5185m >25 <1					-		<1
AluminumppmASTM D5185m>25A 295A 294A 159LeadppmASTM D5185m>100<1							
LeadppmASTM D5185m>100<10<1CopperppmASTM D5185m>200653TinppmASTM D5185m>25<1				>25	-		
Copper ppm ASTM D5185m >200 6 5 3 Tin ppm ASTM D5185m >25 <1							
Tin ppm ASTM D5185m >25 <1 <1 <1 Vanadium ppm ASTM D5185m <1							
VanadiumppmASTM D5185m<1<10CadmiumppmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m00<1					-		
CadmiumprmASTM D5185m000ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m00<1				220			
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m00<1							
BoronppmASTM D5185m00<1BariumppmASTM D5185m19160MolybdenumppmASTM D5185m0<1		ppm	ASTM DS185m		U	U	0
BariumppmASTM D5185m19160MolybdenumppmASTM D5185m0<1	ADDITIVES		method	limit/base	current	history1	history2
MolybdenumppmASTM D5185m0<10ManganeseppmASTM D5185m9144MagnesiumppmASTM D5185m9144CalciumppmASTM D5185m9144CalciumppmASTM D5185m9627574PhosphorusppmASTM D5185m529627574ZincppmASTM D5185m182418861019SulfurppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m65<1	Boron	ppm	ASTM D5185m		0	0	<1
ManganeseppmASTM D5185m<11<1MagnesiumppmASTM D5185m9144CalciumppmASTM D5185m9144CalciumppmASTM D5185m9627574PhosphorusppmASTM D5185m529627574ZincppmASTM D5185m182418861019SulfurppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m65<1	Barium	ppm	ASTM D5185m		19	16	0
MagnesiumppmASTM D5185m9144CalciumppmASTM D5185m436044882217PhosphorusppmASTM D5185m529627574ZincppmASTM D5185m182418861019SulfurppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50252421SodiumppmASTM D5185m>20022FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2VISUALscalar*VisualNONENONENONENONEVisualNONENONENONENONENONENONESiltscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLNORMLNORML	Molybdenum	ppm	ASTM D5185m		0	<1	0
CalciumppmASTM D5185m436044882217PhosphorusppmASTM D5185m529627574ZincppmASTM D5185m182418861019SulfurppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m550252421SodiumppmASTM D5185m50252421SodiumppmASTM D5185m50252421PotassiumppmASTM D5185m50252421FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORML<	Manganese	ppm	ASTM D5185m		<1	1	<1
PhosphorusppmASTM D5185m529627574ZincppmASTM D5185m182418861019SulfurppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50252421SodiumppmASTM D5185m>50252421SodiumppmASTM D5185m>20022FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONEAgpearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Magnesium	ppm	ASTM D5185m		9	14	4
ZincppmASTM D5185m182418861019SulfurppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50252421SodiumppmASTM D5185m>50252421SodiumppmASTM D5185m>20022FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESolitscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Calcium	ppm	ASTM D5185m		4360	4488	2217
ZincppmASTM D5185m182418861019SulfurppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50252421SodiumppmASTM D5185m>50252421SodiumppmASTM D5185m>20022FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOH/gASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Phosphorus	ppm	ASTM D5185m		529	627	574
SulturppmASTM D5185m161720501075CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50252421SodiumppmASTM D5185m>50252421PotassiumppmASTM D5185m>20022FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg K0H/gASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Zinc		ASTM D5185m		1824	1886	1019
SiliconppmASTM D5185m>50252421SodiumppmASTM D5185m65<1	Sulfur		ASTM D5185m		1617	2050	1075
SodiumppmASTM D5185m65<1PotassiumppmASTM D5185m<>20022FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	CONTAMINAN	TS	method	limit/base	current	history1	history2
PotassiumppmASTM D5185m>20022FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Silicon	ppm	ASTM D5185m	>50	25	24	21
FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Sodium	ppm	ASTM D5185m		6	5	<1
Acid Number (AN)mg KOH/gASTM D80451.0940.090.24VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Potassium	ppm	ASTM D5185m	>20	0	2	2
VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Acid Number (AN)	mg KOH/g	ASTM D8045		1.094	0.09	0.24
Yellow Metalscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitatescalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debrisscalar*VisualNONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Debrisscalar*VisualNONENONENONELIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG	Debris		*Visual				LIGHT
Appearancescalar*VisualNORMLNORMLNORMLHAZYOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Sand/Dirt						
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG							
Emulsified Water scalar *Visual >0.2 NEG NEG NEG							
	Free Water	scalar	*Visual				



OIL ANALYSIS REPORT



Contact/Location: CLINTON ZOHNER - HERHER