

# LABORATORY ANALYSIS



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Department **REYLAM - DIECAST**  
Equipment No. **PROTECH09 IHS ANNEAL QUENCH (X0083)**  
System **Quenching Fluid**  
Oil Type **ENGINEERED LUBRICANTS ENCOOL SOL-6465GF-ND-XL-RO (--- GAL)**

## DIAGNOSIS

Please add 1/2 gallon of ENCOOL PH-1-2 to the reservoir to increase alkalinity.(not applicable) There is no indication of any contamination in the quenching fluid. Tertiary amine content is out of range. Alkaline Reserve is excessively low.

## SAMPLE INFORMATION

Lab Number	New	<b>2312-01088</b>	2312-00140	2310-00661
Date of Sample	(Typical)	<b>20 Dec 2023</b>	28 Nov 2023	10 Oct 2023
Oil Added		<b>UNK</b>	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		<b>39.7</b>	39.0	37.4
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		<b>SEVERE</b>	ABNORMAL	SEVERE

## RATIO PER REFRACTOMETER

Refract. Reading		<b>2.4</b>	3.8	3.7
Refract. Model		<b>DIGITAL</b>	DIGITAL	DIGITAL
Refract. Ratio	oil:water	<b>12:1</b>	7:1	7:1

## ALKALINE RESERVE (ADDITION OF DEIONIZED WATER IS PREFERRED)

Alkaline Reserve		<b>92</b>	153	153
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## PH (ASTM E-70)

pH	Scale 0-14	<b>8.9</b>	8.8	9.0
Ratio Rec'd	oil:water	<b>AS REC'D</b>	AS REC'D	AS REC'D

## HARDNESS (MG/L CaCO3)

Hardness (CaCO3)	mg/L	<b>20.7</b>	14.1	17.3
Grains		<b>1.2</b>	<1.0	1.0

## TOTAL AMINE

Total	mmol/gram	<b>0.12</b>	0.18	0.23
Tertiary	mmol/gram	<b>0.08</b>	0.13	0.14
Primary	mmol/gram	<b>0.04</b>	0.05	0.09

## CIC CORROSION

CIC Dilution		<b>AS REC'D</b>	AS REC'D	AS REC'D
CIC Corrosion	%	<b>0.0</b>	0.0	0.0

## GRAVIMETRIC, MG/L

Filter Micron	μ	<b>0.45</b>	0.45	0.45
Gravimetric	mg/L	<b>0</b>	10	14

## BACTERIA COUNT (CLASS RANGE 0 TO 6)

Bacteria Class	Scale 0-6	<b>0</b>	0	0
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## FUNGUS COUNT (CLASS RANGES: YEAST 0 TO 4/MOLD 0 TO 3)

Yeast Class	Scale 0-4	<b>0</b>	0	0
Mold Class	Scale 0-3	<b>0</b>	0	0

## ENERGY DISPERSIVE XRF (\*BELOW MINIMUM DETECTION LIMIT)

ppm Chlorine (Cl)	ppm	*	*	*
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## CONTAMINATION

Water		<b>NEG</b>	NEG	NEG
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Customer Id: MOTMCA  
Sample No.: EN23121088  
Lab Number: 23121088  
Test Package: TEST



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To discuss the diagnosis or test data:  
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# FUEL REPORT

