

**OCEANEERING - MV INTERVENTION**

COMPANY NAME: OCEANEERING - MV INTERVENTION  
 CUSTOMER EQUIP NUM: # 3 DG PORT  
 COMPARTMENT NAME: ENGINE - GEN  
 SERIAL NUMBER: 9AN00144  
 MANUFACTURER: CATERPILLAR  
 MODEL: 35188  
 JOB SITE: Intervention II  
 EXT WARR NUMBER: 985-536-0495

SHOP JOB NUM:  
 COMP SERIAL NUM:  
 COMPARTMENT MODEL:  
 COMP MANUFACTURER:  
 SAMPLE LABEL NUM:  
 FLUID BRAND/WEIGHT: SHELL/15W-40  
 FLUID TYPE:  
 EXT WARR EXPIRE DATE:  
 FUEL CONSUMED:

**SOS Services Laboratory**  
 3799 W. Airline Hwy.  
 Reserve, LA 70084-0536  
 985-536-0495  
[www.louisianamachinery.com](http://www.louisianamachinery.com)



PHONE: OIL  
 SAMPLE TYPE: OIL  
 SAMPLE SHIP TIME (days): 60  
 LAB CONTROL NUMBER: 24-Sep-2020  
 PROCESS DATE: 23-Nov-2020  
 EQUIPMENT METER: 18988 HR  
 METER ON FLUID: 500 HR  
 FLUID CHANGED: No  
 MAKE UP FLUID: MAKE UP FLUID UNITS: FILTER CHANGED: No

D241-60328-0006  
 No Action Required  
 NORMAL WEAR METAL READINGS. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

D241-60328-0008  
 No Action Required  
 NORMAL WEAR METAL READINGS. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

D241-60328-0014  
 No Action Required  
 NORMAL WEAR METAL READINGS. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

D241-60212-0198  
 No Action Required  
 NORMAL WEAR METAL READINGS. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

Element	Cu	Fe	Cr	Al	Pb	Sn	Si	Ni	K	B	Mo	Mn	Ag	Ti	V	Mn	Cd	Ca	Mg	Zn	P	Ba
D241-60328-0006	0	4	0	0	0	0	1	0	13	87	33	0	0	0	0	0	0	2541	223	1258	1046	0
D241-60328-0008	0	4	0	0	1	0	1	0	14	111	32	0	0	0	0	0	0	2888	169	1319	1097	0
D241-60328-0014	0	2	0	0	0	0	1	0	13	119	29	0	0	0	0	0	0	2878	146	1227	1045	0
D241-60212-0198	1	4	0	0	1	0	4	0	4	251	44	0	0	0	0	0	0	3394	172	1399	1185	0

Oil Analysis  
 Particle Count (ppm)

ST	COX	MT	SUL	W	A	F	V100	TBN
D241-60328-0006	1	13	7	19	N	N	13.8	8.1
D241-60328-0008	3	13	8	20	N	N	13.4	8.2
D241-60328-0014	0	12	7	18	N	N	13.5	
D241-60212-0198	4	14	8	21	N	N	14.0	

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Li = Lithium, Mg = Magnesium, Mo = Molybdenum, Ni = Nickel, N = Nitrogen, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, S = Sulfur, V = Vanadium, Zn = Zinc, A = Antineutrino, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, MT = Nitration, OX = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PCI = Particle Counting Index, NAV = Salt Water, FL = Filter Faint, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C, PVI = Particle Volume Indicator