



LUBRIPORT LABORATORIES INC.

1650 AIRLINE DRIVE
KENNER, LA 70062

(504) 464-1734

NEW ORLEANS PUBLIC
BELT RAILROAD
JOSH/BANJO

LOCO 4003
ENGINE

CP #068

BASE NUMBER IN-
CREASED WITH HIGHER
CONCENTRATION OF
CALCIUM. MOST WEAR
LEVELS REDUCED. MUCH
LOWER SODIUM FOUND.
NO CORRECTIVE ACTION
NECESSARY.

SERIOUS PROBLEM
UNLIKELY. RESAMPLE
AT NORMAL TIME.

CALCIUM CONCENTRA-
TION AND BASE NUM-
BER ARE REDUCED.
NORMAL WEAR DETECT-
ED. SERIOUS
PROBLEM UNLIKELY.

CONDITION OF OIL IS
RELATIVELY STABLE.
NO CORRECTIVE AC-
TION NECESSARY.

SLIGHT DECREASE IN
FUEL DILUTION AND
WEAR METALS FOUND.
NO CORRECTIVE
ACTION NECESSARY.

INVOICE NO.	LL-63297	LL-63933	LL-64328	LL-65216	LL-65932
REPORT DATE:	SEPTEMBER 5, 2018	JANUARY 7, 2019	MARCH 20, 2019	SEPTEMBER 18, 2019	FEBRUARY 24, 2020
DATE SAMPLE REC'D:	AUGUST 7, 2018	DECEMBER 17, 2018	MARCH 11, 2019	AUGUST 29, 2019	FEBRUARY 10, 2020
PRODUCT	LUBE OIL	LUBE OIL	LUBE OIL	LUBE OIL	LUBE OIL
LAB NUMBER	8-290	12-484	3-212	8-971	2-260
DATE SAMPLED	7/16/18	10/15/18	2/18/19	5/21/19	11/20/19
VISC. SUS @ 210 F	73.9 SECS.	74.3 SECS.	74.7 SECS.	72.6 SECS.	79.1 SECS.
VISC. KIN @ 210 F	13.95 CST.	14.07 CST.	14.17 CST.	13.63 CST.	15.29 CST.
TBN (D2896)	8.4	8.3	8.1	8.1	8.1
PENTANE INSOLUBLES	0.05%	0.1%	0.1%	0.1%	0.1%
WATER BY DIST.	0.1%	0.1%	0.1%	0.1%	0.05%
SAE WEIGHT	40 WT.	40 WT.	40 WT.	40 WT.	40 WT.
DILUTION	1%	0.5%	0.5%	1%	NIL
METALS					
IRON	5.7	7.8	7.6	8.5	6.6
SILVER	0.0	0.0	0.0	0.0	0.0
ALUMINUM	2.0	1.4	1.7	2.2	2.0
CHROMIUM	0.7	0.9	1.0	1.7	1.5
COPPER	2.1	1.7	2.6	4.4	3.1
MAGNESIUM	12.9	12.7	13.4	18.0	20
SODIUM	34	17.3	18.0	15.7	8.7
NICKEL	1.6	0.2	1.0	0.7	0.7
LEAD	0.6	0.4	1.4	1.1	0.5
SILICON	5.3	8.4	10.1	10.8	10.7
TIN	0.0	0.0	0.0	0.0	0.0
TITANIUM	0.0	0.0	0.0	0.0	0.0
BORON	0.4	1.1	0.9	1.1	0.6
BARIUM	0.9	1.0	1.2	1.0	0.5
MOLYBDENUM	6.4	3.6	2.1	0.6	0.1
VANADIUM	0.0	0.1	0.1	0.2	0.0
ZINC	6.3	8.7	10.7	8.9	8.1
MANGANESE	0.0	0.0	0.0	0.0	0.0
CALCIUM	3278	3418	2980	2928	2865
PHOSPHORUS	21	22	24	9.0	8.3

Josh Filardi