



NATIONAL IRANIAN OIL COMPANY (NIOC)
RESEARCH INSTITUTE OF PETROLEUM INDUSTRY (RIPI)
CRUDE OIL AND PETROLEUM PRODUCTS EVALUATION DEPARTMENT

IRANIAN HEAVY EXPORT CRUDE OIL

TABLE 1: CRUDE OIL GENERAL PROPERTIES ANALYSIS

CHARACTERISTICS	UNITS	RESULT	TEST METHOD
Specific Gravity @ 15.56 /15.56 °C	---	0.8750	ASTM D5002
API Gravity	°API	30.20	
Sulfur Content (Total)	wt.%	1.91	ASTM D4294
H ₂ S Content	ppm	121	IP 570
Mercaptan Content	ppm	185	UOP 163
Nitrogen Content (Total)	wt.%	0.23	ASTM D 5762
Water & Sediment	vol.%	< 0.05	ASTM D4007
Water Content	vol.%	< 0.025	ASTM D4006
Salt Content	PTB	10	ASTM D3230
Kinematic Viscosity @ 10 °C	mm ² /s	29.07	ASTM D445
Kinematic Viscosity @ 20 °C	mm ² /s	18.40	
Kinematic Viscosity @ 40 °C	mm ² /s	9.218	
Pour Point (Upper)	°C	-12	ASTM D5853
Reid Vapor Pressure	psi	6.25	ASTM D323
Asphaltene Content	wt.%	3.4	IP 143
Wax Content	wt.%	5.7	BP 237
Drop Melting Point of Wax	°C	55	IP 133
Conradson Carbon Residue	wt.%	6.20	ASTM D189
Total Acid Number	mg KOH/g	0.15	UOP 565
Nickel Content	mg/kg	14	ASTM D5863
Vanadium Content	mg/kg	73	
Iron Content	mg/kg	<1	
Lead Content	mg/kg	<1	
Sodium Content	mg/kg	5	
Zinc Content	mg/kg	<1	
Copper Content	mg/kg	<1	

Sampling Date: from 18 Aban 1394 (09 Nov. 2015) to 08 Azar 1394 (29 Nov. 2015)
Report Date: 13 Bahman 1394 (02 Feb. 2016)