



NATIONAL IRANIAN OIL COMPANY (NIOC) RESEARCH  
INSTITUTE OF PETROLEUM INDUSTRY (RIPI)

CRUDE OIL AND PETROLEUM PRODUCTS EVALUATION DEPARTMENT

PARS CRUDE OIL

CRUDE OIL GENERAL PROPERTIES ANALYSIS

CHARACTERISTICS	UNITS	RESULT	TEST METHOD
Specific Gravity @ 15.56 /15.56 °C	---	0.9192	ASTM D5002
API Gravity	°API	22.4	ASTM D5002
Sulfur Content (Total)	wt.%	4.25	ASTM D4294
H <sub>2</sub> S Content	ppm	< 1	RIPI
Mercaptan Content	ppm	17	UOP 163
Nitrogen Content (Total)	wt.%	0.12	ASTM D4629
Water & Sediment	vol.%	< 0.05	ASTM D4007
Water Content	vol.%	< 0.05	ASTM D4006
Salt Content	PTB	3	ASTM D3230
Kinematic Viscosity @ 7 °C	mm <sup>2</sup> /s	268.8	ASTM D445
Kinematic Viscosity @ 10 °C	mm <sup>2</sup> /s	199.8	
Kinematic Viscosity @ 20 °C	mm <sup>2</sup> /s	109.3	
Kinematic Viscosity @ 40 °C	mm <sup>2</sup> /s	42.91	
Kinematic Viscosity @ 60 °C	mm <sup>2</sup> /s	19.85	
Pour Point (Upper)	°C	-42	ASTM D5853
Wax Appearance Temperature	°C	+2	Optical Microscopy
Reid Vapor Pressure	psi	5.75	ASTM D323
Asphaltene Content	wt.%	8.40	IP 143
Wax Content	wt.%	1.40	BP 237
Drop Melting Point of Wax	°C	60	IP 133
Conradson Carbon Residue	wt.%	11.4	ASTM D189
Total Acid Number	mg KOH/g	0.47	UOP 565
Nickel Content	mg/kg	20	ASTM D5863
Vanadium Content	mg/kg	86	
Iron Content	mg/kg	<1	
Lead Content	mg/kg	<1	
Sodium Content	mg/kg	1	
Zinc Content	mg/kg	<1	
Copper Content	mg/kg	<1	