

CERTIFICATE OF ANALYSIS

Doc Code:

PDF-LAB-PR14-PDF-F02

Revision No.:

04

Revision Date:

2020.01.20

Drilling Mud Emulsifier

Customer / Client Name:

SAVA ENERGY

Page No.

Address:

Tel/Fax No.:

9374656460

Certificate Issue Date: Request No.:

2024.08.06

Page 1 of 1

03RQ0103

Sample Description:

DME

Certificate No.:

03AD0141

Sample Delivery Date:

2024.08.04

Customer Sampling Code (B/N):

SE-DME-2024929

Sampling Date:

Customer Sampling Code (STK):

۰F

Time

Sampling By:

Customer

Registered Sample Code:

Shipment Qty:

Lab Sample

Expire Date:

Laboratory Test Result

Laboratory Test Date

Rolling situation

2024.08.04

Laboratory Temp

Temp

 $^{\circ}\mathbf{C}$ 29.7

180

Laboratory Humidity

% 20 4

hrs

Test Co
PDF-LAB- TP18-PDF

Code	Test Description	Reference	Standard	Result	±U
UF	Appearance	ASTM D4176	-	Homogeneous Mixture	
718-F	Specific Gravity at 20°C	ASTM D891	-	1.01	
IF	pH	ASTM E70	-	8.39	

According to NISOC Procedure Method						
Composition	Unit	Sample Code	Mud 1	Mud 2	Mud 3	
Oil/Water Ratio	%	-	60/40	60/40	70/30	
S.W	mL	-	140	140	105	
D.M.E	mL	SE-DME- 2024929	3.5	3.5	3.5	
Gasoil	mL	-	210	210	245	
CMC.HV	gr	C45H5	-	0.5	-	

Parameters	Parameters Mud1		Mud2		Mud 3	
	Req	Result	Req	Result	Req	Result
Emulsion Stability before hotroll	Stable	Stable	Stable	Stable	Stable	Stable
Apparent Viscosity after 24 hrs - cP	59	19 ⁻	183	69	164	52
Yeild Point After 24 hrs- lb/100ft2	11	17	46	59	74	32
Gel 10s/Gel 10Min After 24 hrs-Ib/100ft2	2/3	2/2	6/7	3/5	22/24	7/11
Emulsion Stability after 4hrs Rolling at 180°F	Stable	Stable	Stable	Stable	Stable	Stable
Final Volume- mL	500	455	400	415	410	400
pH of Mud	7	8.5	7	8.5	7	8.4

Prepared By Laboratory Expert

Approved By Laboratory Technical Manager

> Signature Date: 2024.08.06

D. Mana

Confirmed

Signature Date 2024.08.06

Signature Date: 2024.08.06

Laboratory test result which has been issued from central laboratory is based on API13A and according to ISO/IEC17025:2017.

This Report shall not be reproduced except in full without the written approval from Pars Drilling Fluids Laboratory

Material Sample will be kept for 1 month from the date submitted to the company.

Address: No.43, 3th Souri St., After bridge's Niayesh, Ashrafi esfahani Highway ,Tehran, Iran Tel: +98 21 44849770 - 6 Fax: +98 21 44849789

Email: lab@parsdrill.com Website: www.parsdrill.com

Laboratory test result is only applicable to the received sample.