**Paper No: PU-SOE- PET- 08**

**Use of Sodium Lignosulphonate in Aqueous Drilling Fluid System for Mud Property Enhancement**

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**Abstract**

Sodium Lignosulphonate (SLS) is yellowish brown powder which is completely soluble in water. It is an anionic surfactant with high molecular weight polymer. It is also rich in sulfo and carboxyl group and has better water-solubility, surfactivity and dispersion capacity. Sodium Lignosulphonate is stable at high temperatures ranging from (150 °F to 250 °F) which occur in well bores during drilling. It acts as a deflocculant which prevents coagulation of bentonite and also as a stabilizer to stabilize emulsions and as thinning agent in drilling fluids. In this study SLS is used as an additive in aqueous drilling fluids and its results are compared with other drilling fluid samples of different compositions.

**Keywords:**

Sodium Lignosulphonate, drilling fluid, deflocculant, thinner, additive

**Publication Details:**

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| --- | --- | --- | --- | --- | --- |
| **Journal Name** | **Vol.** | **Month & Year**  | **Page No.** | **Publisher** | **Scimago Ranking** |
| International Research Journal of Engineering and Technology (IRJET)  |  7 (4) | April, 2020  | 2229-2234 | Engineering Journal Publication | Q4 |