

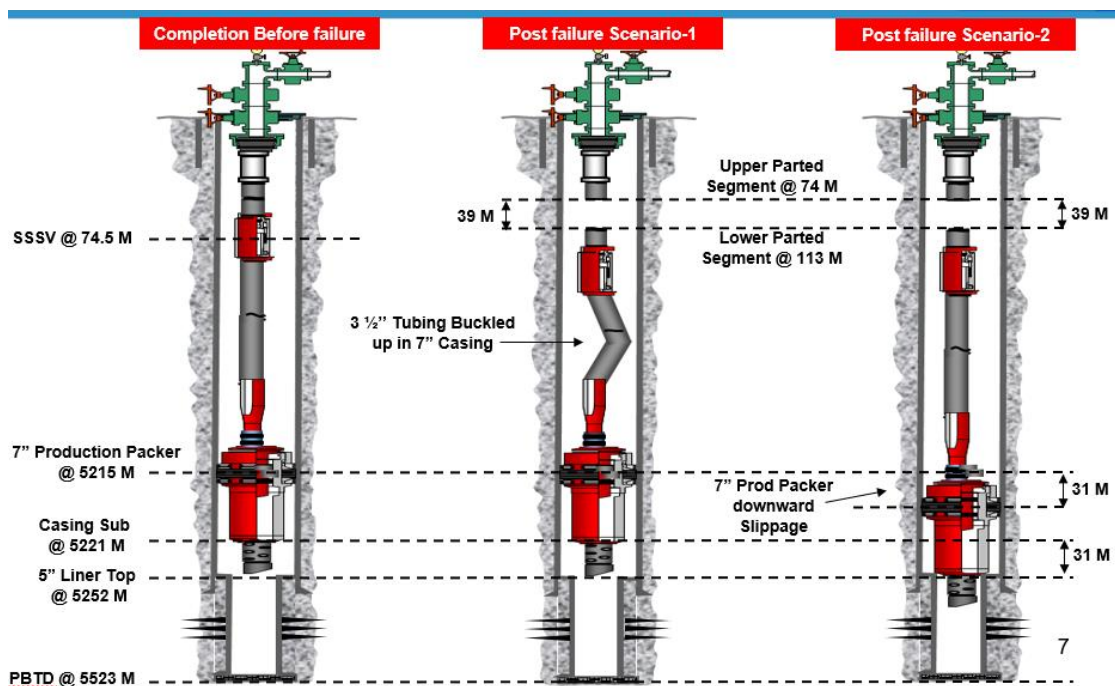
## Expression of Interest (EOI) for providing integrated services for well intervention activity

This Expression of Interest (EOI) is issued by OGDCL with the objective of hiring well intervention services as per details provided.

### Jand-1 well – Jand Area, Attock District, Punjab ~120 km Southeast of Islamabad

Jand-1 well requires intervention work due to parting of tubing. Production from well started in Jan 2019 with 3-1/2", 12.95 PPF, L-80 tubing, TRSSSV and a 7" Wireline set Permanent Completion Packer using CaCl<sub>2</sub> brine of S.G = 1.39 in annulus.

- Well produced for about 3-months BHSIP=10,098 Psi, BHT=294 °F, WHSIP=7,800 Psi
- Gas stream contains 8% H<sub>2</sub>S and 3% CO<sub>2</sub>
- Well was shut in during the Annual Turn Around (ATA). Observed WHSIP 7,800 Psi
- Failed to open TRSSSV after ATA
- Necessary diagnostics were done including a camera run on wireline and concluded that completion string is parted at 74 M depth. Tagged lower parted string at 113 M
- As per available data and caliper log confirmations, fish head is most likely Top part of the TRSSSV tagged at 113 M.



The post failure Scenario-2 is the most likely case of failure of the tubing.

Due to complex nature of intervention work in-house solution is not available. Considering this OGDCL had hired an Internationally reputable consulting company to review the well condition and provide a step by step solution for regaining the well. The consulting company has now provided a detailed Scope of Work for carrying out intervention activity. The broader outline of the intervention plan is divided into Part A & B. A brief overview of both is provided below:

**Plan A:**

Well intervention is carried out via heavy duty coil tubing where the objectives are to recover the upper fish, engage the SSSV inside profile with stinger and then pump to kill the well and turn over to conventional work over operation for a recompletion.

**Plan B:**

Plan will have intervention by re-entering into the well using Heavy Duty Snubbing Operations. This is to be implemented should PLAN A fail to reach its objectives. The most likely scenarios for well conditions that would cause Plan-A to be aborted are:

- Additional tubing or casing failures occurs
- Mechanical issues such as malfunction of the SSSV, packer or surface equipment
- Junk in the hole that prevents Coil Tubing operation

Jand-1 has inherent high risks because of these three reasons:

- High pressure (BHP > 10,000 psi)
- Large concentrations of toxic reservoir gases (8% H<sub>2</sub>S and 3% CO<sub>2</sub>) that may or may not have attacked the tubing and/or protective casing during the shut-in period
- Deep horizons and complex geology, high frac gradients

(~400 days to TD, 5,300m to top reservoir depth, faults, over pressure, etc.)

High pressure and H<sub>2</sub>S/CO<sub>2</sub> combine represent an extreme hazard to onsite crews and anyone in the surrounding if there is an uncontrolled release. An uncontrolled release could create extreme hazards due to the toxicity of H<sub>2</sub>S and further CO<sub>2</sub> and H<sub>2</sub>S are also known to be highly corrosive for tubulars.

As part of the Expression of Interest (EOI), OGDCL is interested to engage those service providers who have the expertise of providing either both or one of the services:

- a) Complete or partial Service required to execute plan A wherein CTU services are mandatory.
- b) Complete or partial Service required to execute plan B wherein Hydraulic workover (HWO) unit or as also called snubbing unit services is mandatory.

Some other considerations for opting for hydraulic workover unit for intervention work:

- In case fish neck is not accessible or found in un-suitable condition, entire TRSSSV has to be milled out against trapped HP. Necessary safety controls are only possible through Snubbing unit.
- The well cannot be killed in its current condition as tubing is parted at 74 M, not allowing circulation at a depth suitable for a heavy enough kill weight fluid.
- Well killing through Bull Heading is very challenging due to poor injectivity, high pressure pumping against tight formation will be required through over shot and highly unlikely to succeed thus creating another set of complexity.
- Coil Tubing can be used for well killing against WHSIP while rigging up on Snubbing stack after TRSSSV shifted into Lock Open position.
- Since the well cannot be killed in its present condition, the possibility of immediately going from a pipe heavy condition to a pipe light condition exists if the bridge would break free allowing 7,800 psi to be seen at surface. In this scenario the snubbing unit would be able to control the tubing where a conventional rig would not and tubing would be ejected.

**The EOI and forward process will run as follows:**

1. Service providers can show their interest in providing either one or both services i.e CTU &/or HWO. It will be legally non-binding intent and service provider may decide to participate or otherwise in the Invitation to Tender (ITT) document that will be issued shortly once the EOI exercise is completed.
2. OGDCL will call a meeting (virtually) with those companies who will participate in the EOI.
3. Service provider to be either the main company offering its services or a JV partner with an International or local company.
4. Following receiving replies to EOI, OGDCL will sign a non-disclosure agreement with those companies who have shown interest and demonstrate their capability of providing required services. Following signing of NDA, the detailed plan (as already established for well intervention activity) can be shared in order for service provider to participate in the ITT.
5. OGDCL will issue ITT document to those companies who have demonstrated reasonable capability of having experience and capability of under taking intervention work.
6. Given the nature of the intervention work, the Contract will be signed with the Company as per mutually agreed terms and conditions. OGDCL understands the inherent nature of risks involved in this operation and therefore will execute a Contract in line with industry standard for such work activity. Companies interested in participating in this work are encouraged to share a DRAFT Contract in response to this EOI, as it will help OGDCL to review and fast track the program. For work execution payments can be made either in USD or PKR. Please do identify any special term or condition that should be looked into for facilitating your company to participate in tendering process.
7. Companies are requested to provide an indicative price for mobilization, day rate and demobilization of HWO. Given that OGDCL has not used HWO in its operations, such information will help us in properly planning budgetary estimates. Again, we understand that final bid price may vary from the indicative / budgetary prices provided by service company.
8. The actual intervention job on the ground is anticipated to take around 4-5 weeks excluding mobilization and demobilization of the HWO. Currently there is no hydraulic workover units available in Pakistan. However, two (02) companies are providing CTU services.

Reply to Expression of Interest along with brief company information to be submitted no later than 15<sup>th</sup> of March 2024 via email to following email addresses:

Mr. Muhammad Tariq – Manager (Production)-NA/Services: [muhammad.tariq@ogdcl.com](mailto:muhammad.tariq@ogdcl.com)

Any clarification at this stage can also be obtained by sending email to provided email address.

In case if the company decides to submit reply in hard copy it can be submitted to OGDCL address attention to details as above.