Statement of Work (SOW)

Geophysical Well Logging Services at Nellis Air Force Base, Nevada

1.0 Introduction

This Statement of Work (SOW) defines the geophysical well logging services to be provided at Nellis Air Force Base (AFB), Nevada. The services outlined will be for a well drilled to a maximum depth of 1,250 feet by the 820 RED HORSE Squadron (RHS) Special Capabilities team. The Contractor will perform various geophysical tests on the well, as specified below, and will mobilize to the site to provide the necessary equipment, personnel, and expertise.

2.0 Objectives

The Contractor will provide well logging services, including but not limited to the following types of testing: Nuclear Magnetic Resonance (NMR), Electric Log, Gamma-Ray/LL3, Sonic/VDL, Temperature, and Caliper testing, as outlined in this SOW. These services will be requested and provided between 8 July and 22 September, with flexibility in scheduling based on operational needs.

3.0 Scope of Work

The Contractor will be required to perform the following tasks:

- **Mobilization:** The Contractor will mobilize personnel, equipment, and materials necessary for the performance of all services at Nellis AFB. Mobilization will occur prior to the commencement of any testing and will include transportation of all geophysical logging tools and associated equipment to the site.
- **Nuclear Magnetic Resonance (NMR) Testing:** The Contractor will perform NMR testing to assess porosity, permeability, and fluid content of the subsurface formations. This test will provide detailed information regarding the pore structure of the rock formations encountered during the drilling process.
- **Electric Log:** The Contractor will conduct electric well logging, typically using a resistivity tool to provide data on the electrical properties of the rock formations. This test is essential to assess the lithology and the fluid saturation of the wellbore.
- **Gamma-Ray/LL3 Log:** The Contractor will perform a Gamma-Ray and LL3 (Lithology Logging) test to identify the presence of radioactive elements in the formations and to assess lithological composition. This test helps in identifying shale, sandstone, limestone, and other formations based on their gamma-ray emissions.
- **Sonic/VDL (Velocity of Dynamic Log) Testing:** The Contractor will perform sonic logging to measure the travel time of acoustic waves in the formations. This data will help determine the mechanical properties of the rock, including its porosity and elasticity. The VDL test will provide critical information on formation strength.
- **Temperature Log:** The Contractor will carry out temperature logging to assess the geothermal gradient and to detect any abnormal heat flow within the well. This is essential to understanding fluid movement and potential geothermal resources.
- **Caliper Log:** The Contractor will use a caliper tool to measure the diameter of the wellbore along its entire length. This log helps assess any borehole instability or irregularities that might affect well integrity or completion operations.

4.0 Work Schedule
The requested services should be completed between 8 July and 22 September, with flexibility for adjustments based on operational requirements. The Contractor is expected to mobilize to site in upon notification. 820 RHS will notify Contractor at least 5 days before service is required.

5.0 Deliverables
Upon completion of each well logging test, the Contractor will deliver the following:

- **Test Data Reports:** Detailed logging data for each type of test conducted, including graphs, interpretations, and analysis.
- **Final Summary Report:** A comprehensive report that summarizes all testing performed, with analysis and recommendations based on the data collected. This report must be delivered within 10 business days of the completion of testing.
- **Log Sheets and Raw Data:** All raw data from the logging tests, including calibration data, raw readings, and interpretations.

6.0 Contractor Responsibilities
The Contractor will be responsible for the following:

- Providing all necessary tools, equipment, and personnel to conduct the specified geophysical logging services.
- Ensuring that all testing equipment is properly calibrated and functioning before mobilization.
- Conducting all work in compliance with applicable safety and environmental standards, as well as Air Force regulations.
- Providing an on-site supervisor or project manager who will coordinate directly with Nellis AFB personnel and the 820 RED HORSE Squadron team.
- Ensuring flexibility in scheduling, with the ability to adjust services based on operational needs and logistical constraints.
- Ensuring all personnel entering Nellis Air Force Base do not have a criminal record and are in possession of a Real ID.
- Must provide names of Contractor personnel entering installation prior to mobilization for entry access coordination.

7.0 Government Responsibilities
The government will provide the following support:

- Access to the wellbore and coordination with the 820 RED HORSE Squadron team for necessary logistics and well completion information.
- Ensuring the well is drilled to the maximum depth of 1,250 feet prior to the Contractor's arrival.
- Providing support for mobilization and demobilization of the Contractor's equipment and personnel.
- Ensuring base access for Contractor.

8.0 Location
The geophysical well logging services will be conducted at **Nellis Air Force Base, Nevada**. Specific well locations and access instructions will be provided prior to mobilization. All

Contractor personnel must possess a real ID and coordinate with the designated 820 RHS member to be added to base Entry Access List (EAL).

9.0 Performance Requirements

The Contractor must ensure the following:

- Timely mobilization and execution of services within the specified timeframe.
- High-quality geophysical data is collected and provided in a timely manner.
- Compliance with all safety, security, and environmental regulations set forth by the Air Force and applicable industry standards.
- Proper maintenance of all testing equipment and tools to ensure consistent quality of service.

10.0 Payment Terms

- **Payment:** Final payment will be made after the satisfactory completion of the deliverables and submission of the Final Summary Report.

11.0 Special Conditions

- The Contractor must be flexible regarding the schedule and must be able to adapt to changes in the timing of service delivery within the service window of 8 July – 22 September.
- All work must be conducted in accordance with applicable federal, state, and local regulations, including those specific to Nellis AFB and military operations.
- The Contractor must be able to provide proof of adequate insurance coverage for equipment, personnel, and services to be provided under this contract.