1. **GRANTEE:** Schlumberger Technology Corp  
   Rosharon, TX

2. **PURPOSE AND LIMITATION:**

   a. This special permit authorizes the manufacture, mark, sale, and use of a non-DOT specification cylinder conforming in part to the DOT Specification 3A, except as specified herein, for the transportation in commerce of the hazardous materials authorized in this special permit. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

   b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.

   c. In accordance with 49 CFR 107.107(a), party status may not be granted to a manufacturing permit. These packagings may be used in accordance with 49 CFR 173.22a.

3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR 173.301(f) in that the cylinder is not fitted with a pressure relief device; §§ 173.302(a), 173.304(a), and 173.304a(d) and §§ 178.35 and 178.36 in that a non-DOT specification cylinder is not authorized, except as specified herein.
5. **BASIS:** This special permit is based on the application of Schlumberger Technology Corp. dated December 21, 2020, submitted in accordance with § 107.109.

6. **HAZARDOUS MATERIALS (49 CFR 172.101):**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressed gas, toxic, flammable, n.o.s. Inhalation</td>
<td>2.3</td>
<td>UN1953</td>
<td>N/A</td>
</tr>
<tr>
<td>hazard Zone B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrocarbon gas mixture, compressed, n.o.s.</td>
<td>2.1</td>
<td>UN1964</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydrocarbon gas mixture, liquefied, n.o.s.</td>
<td>2.1</td>
<td>UN1965</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>2.3</td>
<td>UN1053</td>
<td>N/A</td>
</tr>
<tr>
<td>Liquefied gas, flammable, n.o.s.</td>
<td>2.1</td>
<td>UN3161</td>
<td>N/A</td>
</tr>
<tr>
<td>Nitrogen, compressed</td>
<td>2.2</td>
<td>UN1066</td>
<td>N/A</td>
</tr>
<tr>
<td>Petroleum gases, liquefied or</td>
<td>2.1</td>
<td>UN1075</td>
<td>N/A</td>
</tr>
<tr>
<td>Liquefied petroleum gas</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

   a. **PACKAGING:** Packaging prescribed is a non-DOT specification oil well sampling cylinder with a maximum design pressure of 20,000 psig. The cylinder must comply with the design calculations, drawings, material specifications and engineering specifications submitted with the Schlumberger application on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD). The cylinders must be in conformance with the DOT 3A specification (§§ 178.35 and 178.36), except as follows:

   § 178.35(e) **Safety Devices.** No pressure relief device is required on the completed cylinder. Each cylinder must be equipped with elastomeric seals which relieve
pressure when subjected to a pool fire. The start to discharge pressure must not exceed the hydrostatic test pressure.

§ 178.35(f) Markings. Cylinders shall be marked “DOT-SP 16199” in lieu of “DOT 3A”.

§ 178.36(b) Steel. The authorized material of construction, in accordance with Schlumberger Material Specification 101150964 on file with OHMSAPD, is Hastelloy C-22HS. All materials must meet the requirements of the National Association of Corrosion Engineers (NACE) Specification MR0175/ISO 15156 for suitability in hydrogen sulfide (H$_2$S) service.

§ 178.36(d) Manufacture. The cylinder must be manufactured using equipment and processes adequate to ensure that each cylinder produced conforms to the requirements of this special permit. Material stock must be inspected to assure cleanliness and be free of defects that are likely to weaken the finished cylinder. The final dimensions of the finished cylinder must conform to Schlumberger drawings 101120167D, 101120168D, 101120169D, 101424733D, and 101145922D on file with the OHMSAPD.

§ 178.36(f) Wall thickness. The minimum wall thickness for the cylinder may not be less than 0.239 inch.

§ 178.36(g) Heat treatment. The completed cylinder need not be heat treated. However, the heat treatment of the purchased stock material must conform to NACE MR0175/ISO 15156.

§ 178.36(h) Openings in cylinders and connections. Openings and connections must conform as shown in Schlumberger-Oilphase drawing 101424733.

§ 178.36(j) Flattening test. No flattening test is required.

§ 178.36(l) Acceptable results for physical tests. The mechanical properties of the tensile specimens must meet the minimum criteria established in the Schlumberger Material Specification 101150964.
b. **TESTING:** Each cylinder must be reinspected and hydrostatically retested in accordance with 49 CFR §§ 180.205 and 180.209 as prescribed for DOT-3A specification cylinders. Reheat treatment or repair of rejected cylinders is not permitted.

c. **OPERATIONAL CONTROLS:**

(1) Each cylinder must be individually packed in the transportation box as specified in the Schlumberger SMPC-XT Transit Case Specification 100978739.

(2) The maximum in-transport pressure is 20,000 psig.

(3) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the receptacles are not fitted with pressure relief devices and provide appropriate guidance in case the receptacles are exposed to fire.

8. **SPECIAL PROVISIONS:**

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Officer of Hazardous Materials Safety Approvals and Permits Division for a specific manufacturing facility.
e. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

f. The cylinders are authorized for oil well sampling service only.

g. The transportation of Division 2.1 materials (flammable gases) or Division 2.3 materials (toxic gases) aboard cargo vessel or aircraft is not authorized unless specifically stated in the Hazardous Materials Table (§ 172.101).

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo-only aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft, or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

   o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

   o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

   o Registration required by § 107.601 et seq., when applicable.

Each “Hazmat employee”, as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.
No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) — “The Hazardous Materials Safety and Security Reauthorization Act of 2005” (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term “exemption” to “special permit” and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notices of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

[Signature]

for William Schoonover
Associate Administrator for Hazardous Materials Safety


Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm
Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: TG