1. GRANTEE: Core Laboratories L.P.
   Houston, TX

2. PURPOSE AND LIMITATIONS:
   a. This special permit authorizes the manufacture, mark, sale and use of a non-DOT specification cylinder conforming with all regulations applicable to a DOT Specification 3A cylinder, except as specified herein, for the transportation in commerce of the materials authorized by 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 development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with 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.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.201(c), 173.202(c), 173.203(c), 173.302a(a), and 173.304a(a) and (d) in that a non-DOT specification cylinder is not authorized, except as specified herein; § 173.301(f) in that the cylinder is not equipped with a pressure relief device; and §§ 178.35(f), and 180.213 in that markings must conform to applicable requirements, except as specified herein.

5. BASIS: This special permit is based on the application of Core Laboratories L.P. dated November 19, 2020 and submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressed gas, flammable, n.o.s.</td>
<td>2.1</td>
<td>UN1954</td>
<td>N/A</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>Liquefied gas, flammable, n.o.s.</td>
<td>2.1</td>
<td>UN3161</td>
<td>N/A</td>
</tr>
<tr>
<td>Natural gas, compressed</td>
<td>2.1</td>
<td>UN1971</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 crude oil</td>
<td>3</td>
<td>UN1267</td>
<td>I, II, or III</td>
</tr>
<tr>
<td>Petroleum gases, liquefied</td>
<td>2.1</td>
<td>UN1075</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packaging is a non-DOT specification oil well sampling cylinder, threaded at one end with a matching threaded end cap closure. The opposite end closure is machined as part of the cylinder body. Each
cylinder must comply with the design calculations, drawings, material specifications and engineering specifications submitted by Core Laboratories and on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD). In addition, each cylinder must conform to 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. The cylinder must be equipped with elastomeric seals that relieve pressure when subjected to a pool fire.

§ 178.35(f) Marking.

(1) * * *

(i) Each cylinder must be marked “DOT-E 12899” in lieu of “DOT-3A” followed by the service pressure.

(2) and (3) * * *

(4) The markings on each cylinder must be plain and permanent. Markings may be made using engraving, low stress metal stamping, dot matrix engraver, electric pencil or laser. The depth and size of the markings may not create harmful stress concentrations or impinge on the minimum wall thickness. The markings must be in accordance with drawing 500P-03-01-02 on file with OHMSAPD.

* * *

§ 178.36(a) Type, Size, and Service pressure.

The cylinder body and components are machined from solid bar stock. The maximum service pressure may not exceed 25,000 psig.

§ 178.36(b) Steel.

Material for the cylinder body and end cap must be AISI 630 17-4PH stainless steel double heat treated at 1150 °F. The material must meet the specification of AMS 5643P. Material must meet the requirements of the
National Association of Corrosion Engineers (NACE) Specification MR-01-75 for suitability in hydrogen sulfide (H$_2$S) service.

§ 178.36(f) Wall thickness.

The minimum wall thickness must be 0.975 inch.

§ 178.36(g) Heat treatment.

No heat treatment is required for the completed cylinder.

§ 178.36(j) Flattening test.

No flattening test is required.

§ 178.36(l) Acceptable results for physical tests.

Minimum Tensile strength: 135,000 psi
Minimum Yield strength: 105,000 psi
Elongation: 18% on a 4D 2 inch gage length specimen

b. TESTING: Each cylinder must be reinspected and hydrostatically retested in accordance with § 180.205 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 packed for shipment in accordance with 49 CFR 173.301(a)(9).

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

8. SPECIAL PROVISIONS:

a. The cylinders are authorized for oil well sampling service only.
b. 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.

c. A person who is not a holder of this special permit, but 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 offered for transportation in conformance with this special permit and the HMR.

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

e. 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 OHMSAPD for a specific manufacturing facility.

f. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

g. Transportation of Division 2.1 materials (flammable gases) are not authorized aboard cargo vessel or aircraft unless specifically authorized 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 or aircraft used to transport packages covered by this special permit. The shipper must furnish a current 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.:

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

- 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.

- 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 notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this
Continuation of DOT-SP 12899 (10th Rev.)

December 01, 2020

A 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: CWFreeman/kah/TD