OVERVIEW
Halliburton PetroGuard® Line and Cable System (LCS) helps enable the installation of any standard Halliburton screen with the additional capability of encapsulating and protecting standard cable or control line used in downhole applications. The system is highly robust and capable of withstanding the anticipated tension, torque, and bending loads that may be experienced while running in hole.

The PetroGuard LCS is compatible with any standard fiber optic, control, or electric line configuration. It is fabricated eccentrically on any standard Halliburton sand screen, with timed threads aligning the channels between joints. A purpose-built cable protector is used at connections between screen joints.

Thorough testing has indicated that using the PetroGuard LCS has no detrimental effect on the screen strength and in fact increases some screen ratings. The system was also tested in burst using standard ISO 17824 procedures and exceeded the ISO rated burst pressure. In crush testing, it protected a standard 11 mm encapsulated fiber optic cable despite the screen being crushed flat, with the cable showing no loss in signal strength.

FEATURES AND BENEFITS
» Line/cable securely retained
» Robustness makes it ideal for openhole deployment
» Can be configured for most line configurations/sizes
» Available for any standalone screen type
» Timed joint connections ensure precise alignment
» Fast installation time

PetroGuard® Line and Cable System
LEVEL 1 CAPABILITY
SAND CONTROL
Filtration Technology
LEVEL 2 Capability (if applicable)
### PetroGuard® LCS Technical Specifications

<table>
<thead>
<tr>
<th>Basepipe OD in. (mm)</th>
<th>Screen OD (Concentric) in. (mm)</th>
<th>System OD (Eccentric)(^1) in. (mm)</th>
<th>Cable Capacity(^2) in. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (101.60)</td>
<td>4.80 (121.92)</td>
<td>5.59 (141.99)</td>
<td>0.43 x 0.43 (11 x11)</td>
</tr>
<tr>
<td>4 1/2 (114.30)</td>
<td>5.31 (134.87)</td>
<td>6.10 (154.94)</td>
<td>0.43 x 0.43 (11 x11)</td>
</tr>
<tr>
<td>5 (127.00)</td>
<td>5.82 (147.83)</td>
<td>6.61 (167.89)</td>
<td>0.43 x 0.43 (11 x11)</td>
</tr>
<tr>
<td>5 1/2 (139.70)</td>
<td>6.32 (160.53)</td>
<td>7.11 (180.59)</td>
<td>0.43 x 0.43 (11 x11)</td>
</tr>
<tr>
<td>6 5/8 (168.28)</td>
<td>7.46 (189.48)</td>
<td>8.25 (209.55)</td>
<td>0.43 x 0.43 (11 x11)</td>
</tr>
</tbody>
</table>

\(^1\) Timed threads required
\(^2\) Other configurations possible, contact your Halliburton representative