# Registered Data Sheet Perforating System Evaluation, API RP 19B Section 1

**API Form 19B-Section 1**

- **Conforms to All Requirements of Section 1**: Yes

**Service Company**: GEOdynamics, Inc.

**Gun OD & Trade Name**: 4.63-in. Expendable Hollow Carrier

**Charge Name**: SBH LD RDX

**Manufacturer**: EC2-26A2631

**Date of Manufacture**: 07/11/2012

**Gun Type**: TCP and Wireline Hollow Carrier, Non Reusable

**Phasing Tested**: 140/20 degrees

**Firing Order**: Top down

**Debris Description**: Zinc Powder

**Remarks/Exceptions per Section 1.11**: Maximum gun diameter after shooting in liquid is 4.81 in.

**Casing Data**

- **7" OD**: 32
- **Weight**: 5,780 lb
- **API Grade**: L-80
- **Date of Section 1 Test**: 08/29/2012

**Target Data**

- **Amount of Cement**: 6,005 lb
- **Amount of Sand**: 11,675 lb
- **Amount of Water**: 3,015 lb

**Date of Compressive Strength Test**: 08/29/2012

**Briquette Compressive Strength**: 6,005 psi

**Age of Target**: 36 days

**Shot No.**

<table>
<thead>
<tr>
<th>No 1</th>
<th>No 2</th>
<th>No 3</th>
<th>No 4</th>
<th>No 5</th>
<th>No 6</th>
<th>No 7</th>
<th>No 8</th>
<th>No 9</th>
<th>No 10</th>
<th>No 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
</tr>
</tbody>
</table>

**Clearance, in.**

0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73

**Casing Hole Diameter, Short Axis, in.**

0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93

**Casing Hole Diameter, Long Axis, in.**

0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94

**Average Casing Hole Diameter, in.**

0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93

**Total Depth, in.**

5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7

**Burr Height, in.**

0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10

**Shot No.**

<table>
<thead>
<tr>
<th>No 12</th>
<th>No 13</th>
<th>No 14</th>
<th>No 15</th>
<th>No 16</th>
<th>No 17</th>
<th>No 18</th>
<th>No 19</th>
<th>No 20</th>
<th>No 21</th>
<th>No 22</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
<td>0.93</td>
</tr>
</tbody>
</table>

**Clearance, in.**

0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73

**Casing Hole Diameter, Short Axis, in.**

0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86

**Casing Hole Diameter, Long Axis, in.**

0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89

**Average Casing Hole Diameter, in.**

0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88

**Total Depth, in.**

5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7 5.7

**Burr Height, in.**

0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11 0.11

**Remarks**

- Type of Certification: Self - third party certification
- Certified by: James King - QSD Third Party

I certify that these tests were made according to the procedures as outlined in API 19B: Recommended Practice for Evaluation of Well Perforators, Second Edition, September 2006. All of the equipment used in these tests, such as the guns, jet charges detonator cord, etc., was standard equipment with our company for the use in the gun being tested and was not changed in any manner for the test. Furthermore, the equipment was chosen at random from stock and therefore will be substantially the same as the equipment that would be furnished to perforate a well for any operator. API neither endorses these tests nor recommends the use of the perforator system described.

---

**Name of test as it should appear on website:** 4.63-in. EHC w/ 4626 SBH LD RDX

**Name of test as it appears on application and application date:** 4.63-in. EHC w/ 4626 SBH LD - 07/09/2012