



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

API Form 19B-Section 1  Conforms to All Requirements of Section 1  Special Test - See Remarks/Exceptions below

Service Company Available to all service companies. Manufactured by ETASA(Argentina) SA Explosive weight 16.5 gm, RDX powder, Case Material STEEL

Gun OD & Trade Name 2 7/8" High Shot Density Gun DP RDX Max Temp, °F 330°F 1 hr 3 hr 24 hr 100 hr 200 hr

Charge Name 2 7/8" Barracuda HMX DP (DSC 17-03-13) Maximum Pressure Rating 20000 psi, Carrier Materials STEEL

Manufacturer Charge Part No. TC46R Date of Manufacture 03/20/2017 Shot Density Tested 6 Shots/ft

Gun Type Expendable, Retrievable HSC TCPWL Recommended Minimum ID for Running \_\_\_\_\_ in.

Phasing Tested 60 degrees, Firing Order: Top down x Bottom up Available Firing Mode: X Selective X

Debris Description Cases and loading tube debris keeps inside the gun Debris Weight N/A gm/charge, Debris N/A

Remarks/Exceptions per Section 1.11 \_\_\_\_\_

Casing Data 4 1/2" OD, Weight 11.6 lb/ft, API Grade, L-80 Date of Section 1 Test 10 /02 /2017

Target Data 76" OD, Amount of Cement 7605 lb, Amount of Sand 15210 lb, Amount of Water 3955 lb.

Date of Compressive Strength Test 10 /03 /2017 Briquette Compressive Strength 5603 psi, Age of Target 31 days

Shot No.	No 1	No 2	No 3	No 4	No 5	No 6	No 7	No 8	No 9	No 10	No 11	Average
Clearance, in.	0.000	0.221	0.784	1.126	0.784	0.221	0.000	0.221	0.784	1.126	0.784	XXXXXX
Casing Hole Diameter, Short Axis, in	0.380	0.380	0.350	0.360	0.320	0.330	0.380	0.370	0.370	0.320	0.350	0.364
Casing Hole Diameter, Long Axis, in	0.400	0.420	0.370	0.380	0.330	0.350	0.390	0.390	0.380	0.350	0.360	0.382
Average Casing Hole Diameter, in.	0.390	0.400	0.360	0.370	0.325	0.340	0.385	0.380	0.375	0.335	0.355	0.373
Total Depth, in.	32.75	32.75	33.25	33.25	31.25	33.25	31.75	31.00	31.75	33.75	29.25	32.029
Burr Height, in.	0.024	0.013	0.029	0.062	0.019	0.032	0.047	0.037	0.039	0.024	0.071	0.041
Shot No.	No 12	No 13	No 14	No 15	No 16	No 17	No 18	No 19	No 20	No 21	No 22	
Clearance, in.	0.221	0.000	0.221	0.784	1.126	0.784	0.221	0.221				
Casing Hole Diameter, Short Axis, in	0.400	0.380	0.410	0.380	0.340	0.360	0.380	0.380				
Casing Hole Diameter, Long Axis, in	0.410	0.390	0.430	0.400	0.360	0.370	0.400	0.400				
Average Casing Hole Diameter, in.	0.405	0.385	0.420	0.390	0.350	0.365	0.390	0.390				
Total Depth, in.	31.25	32.75	33.50	LOST	30.75	29.75	32.50	32.50				
Burr Height, in.	0.078	0.054	0.048	0.069	0.027	0.020	0.050	0.050				

**Manufacturer's Certification**

Type of Certification: \_\_\_\_\_ Self \_\_\_\_\_ Carlos J. Caste API W 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.

CERTIFIED BY Gabriel Scipioni (Company Official) ETASA (Argentina) SA (Company) Ruta 25 Km 13- Villa Rosa-Bs.-As-Argentina (Address)

RECEIVED Manager Explosive Plant (Title) 10/04/2017 (Date)

Name of test as it should appear on website: 2 7/8" High Shot Density Gun With TC46R RDX Barracuda DP

Name of test as it appears on application and application date: TC46R - 2 7/8" 6 SPF 60° - DP - RDX