

**REGISTERED DATA SHEET PERFORATING SYSTEM EVALUATION, API RP 19B SECTION 1**

Service Company \_\_\_\_\_ Available to all \_\_\_\_\_ Design Number \_\_\_\_\_  
 Gun OD & Trade Name 4" High Shot Density Gun DP - HMX  
 Charge Name 39 gms. Barracuda DP - HMX (DSC 03-08-46)  
 Manufacturer Charge Part No. TC47H Date of Manufacture Aug 16<sup>th</sup> 2003  
 Gun Type High Shot Density Gun for WL or TCP  
 Phasing Tested 90 degrees, Firing Order X Top Down, \_\_\_\_\_ Bottom Up  
 Debris Description N/A  
 Remarks \* Gun OD After firing in liquid 4.40"

Explosive Weight 39 gm, HMX powder, Case Material Steel  
 Max. Temp, °F 400 1 hr \_\_\_\_\_ 3 hr \_\_\_\_\_ 24 hr \_\_\_\_\_ 100 hr \_\_\_\_\_ 200 hr \_\_\_\_\_  
 Maximum Pressure Rating 20.000 psi, Carrier Material Steel  
 Shot Density Tested \_\_\_\_\_ 4 \_\_\_\_\_ Shots/ft \_\_\_\_\_  
 Recommended Minimum ID for Running \_\_\_\_\_ \* \_\_\_\_\_ in.  
 Available Firing Mode \_\_\_\_\_ Selective, \_\_\_\_\_ Simultaneous  
 Debris Weight N/A gm/charge, Debris N/A in<sup>3</sup>/charge

**SECTION 1 - CONCRETE TARGET**

Casing Data 5 1/2" OD, Weight 17 lb/ft, L-80 API Grade, Date of Section 1 Test Sept 22<sup>nd</sup> 2003  
 Target Data 110" OD, Amount of Cement 7125 lb., Amount of Sand 14250 lb., Amount of Water 3705 lb.  
 Date of Compressive Strength Test Sept 23<sup>rd</sup> 2003, Briquette Compressive Strength 6881 psi, Age of Target 30 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
Clearance, in. ....	0.000	0.405	0.892	0.405	0.000	0.405	0.892	0.405	0.000	0.405	0.892
Casing Hole Diameter, Short Axis, in. ....	0.493	0.524	0.552	0.448	0.504	0.546	0.465	0.474	0.507	0.526	0.482
Casing Hole Diameter, Long Axis, in. ....	0.515	0.537	0.558	0.477	0.512	0.551	0.483	0.481	0.571	0.532	0.510
Average Casing Hole Diameter, in. ....	0.504	0.531	0.555	0.463	0.508	0.549	0.474	0.478	0.539	0.529	0.496
Total Depth, in. ....	47.054	46.304	51.304	48.429	42.304	47.554	48.054	45.304	38.804	47.304	46.804
Burr Height, in. ....	0.056	0.044	0.023	0.071	0.035	0.053	0.060	0.017	0.048	0.059	0.033

  

Shot No.	No. 12	No. 13	No. 14	No. 15	No. 16	No. 17	No. 18	No. 19	No. 20	No. 21	No. 22	Average
Clearance, in. ....	0.405	0.000										0.393
Casing Hole Diameter, Short Axis, in. ....	0.489	0.556										0.505
Casing Hole Diameter, Long Axis, in. ....	0.528	0.560										0.524
Average Casing Hole Diameter, in. ....	0.509	0.558										0.551
Total Depth, in. ....	47.804	44.804										46.294
Burr Height, in. ....	0.061	0.025										0.045

**WITNESSING INFORMATION**

Date of Notice of Intent to Test: July 25<sup>th</sup> 2003 Witnessed by: J. Smirnov J. Smirnov (API Certified)  
 Other Activities Witnessed: Target Pouring \_\_\_\_\_ Briquette: Preparation \_\_\_\_\_ Testing X Burr Height Measurement X Samples Taken: Concrete X Casing X

**CERTIFICATION**

I certify that these tests were made according to the procedures as outlined in API RP 19B: Recommended Practices for Evaluation of Well Perforators, First Edition, November 2000. 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, which would be furnished to perforate a well for any operator. The American Petroleum Institute neither endorses these test results nor recommends the use of the perforator system described.

X CERTIFIED BY DARIO BERTANZIS Perforating Projects Manager Sept 24<sup>th</sup> 2003 Explosivos Tecnologicos Argentinos S.A. Ruta 25Km.13 Pilar- Bs.As. Argentina  
 \_\_\_\_\_ RECERTIFIED \_\_\_\_\_ (Title) \_\_\_\_\_ (Date) \_\_\_\_\_ (Company) \_\_\_\_\_ (Address)