



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

Service Company Available to all Design Number _____ Explosive Weight 27 gm, HMX powder, Case Material Steel
 Gun OD & Trade Name 2 1/2" Through Tubing Gun DP HMX Max. Temp, °F 375 1 hr _____ 3 hr _____ 24 hr _____ 100 hr _____ 200 hr
 Charge Name 2 1/2" Piranha Next Generation DP (DSC 06-01-30) Maximum Pressure Rating 15,000 psi, Carrier Material Steel
 Manufacturer Charge Part No. TG51HNG Date of Manufacture Jan 14th 2006 Shot Density Tested _____ 5 _____ Shots/ft
 Gun Type Through Tubing Gun, Low Debris Link 5 SPF 60° Recommended Minimum ID for Running _____ 2.75 _____ in.
 Phasing Tested 60° degrees, Firing Order X Top Down, _____ Bottom Up Available Firing Mode _____ Selective, _____ X _____ Simultaneous
 Debris Description Steel Chips Debris Weight _____ gm/charge, Debris _____ in³/charge
 Remarks _____

SECTION 1 - CONCRETE TARGET

Casing Data 4 1/2" OD, Weight 11.6 lb/ft, L-80 API Grade, Date of Section 1 Test June 05th 2006
 Target Data 91 OD, Amount of Cement 9400 lb., Amount of Sand 18795 lb., Amount of Water 4890 lb.
 Date of Compressive Strength Test June 06th 2006, Briquette Compressive Strength 6606 psi, Age of Target 35 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.....	<u>0.000</u>	<u>0.267</u>	<u>1.017</u>	<u>1.500</u>	<u>1.017</u>	<u>0.267</u>	<u>0.000</u>	<u>0.267</u>	<u>1.017</u>	<u>1.500</u>	<u>1.017</u>
Casing Hole Diameter, Short Axis, in.....	<u>0.380</u>	<u>0.370</u>	<u>0.360</u>	<u>0.340</u>	<u>0.380</u>	<u>0.350</u>	<u>0.340</u>	<u>0.390</u>	<u>0.420</u>	<u>0.390</u>	<u>0.360</u>
Casing Hole Diameter, Long Axis, in.....	<u>0.390</u>	<u>0.390</u>	<u>0.380</u>	<u>0.360</u>	<u>0.400</u>	<u>0.400</u>	<u>0.360</u>	<u>0.410</u>	<u>0.430</u>	<u>0.410</u>	<u>0.380</u>
Average Casing Hole Diameter, in.....	<u>0.385</u>	<u>0.380</u>	<u>0.370</u>	<u>0.350</u>	<u>0.390</u>	<u>0.375</u>	<u>0.350</u>	<u>0.400</u>	<u>0.425</u>	<u>0.400</u>	<u>0.370</u>
Total Depth, in.....	<u>30.255</u>	<u>39.005</u>	<u>37.255</u>	<u>41.005</u>	<u>34.255</u>	<u>35.755</u>	<u>33.505</u>	<u>37.005</u>	<u>32.505</u>	<u>33.755</u>	<u>39.755</u>
Burr Height, in.....	<u>0.030</u>	<u>0.050</u>	<u>0.015</u>	<u>0.037</u>	<u>0.014</u>	<u>0.019</u>	<u>0.030</u>	<u>0.025</u>	<u>0.018</u>	<u>0.021</u>	<u>0.028</u>

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.....	<u>0.267</u>	<u>0.000</u>	<u>0.267</u>	_____	_____	_____	_____	_____	_____	_____	_____	<u>0.600</u>
Casing Hole Diameter, Short Axis, in.....	<u>0.410</u>	<u>0.360</u>	<u>0.370</u>	_____	_____	_____	_____	_____	_____	_____	_____	<u>0.373</u>
Casing Hole Diameter, Long Axis, in.....	<u>0.430</u>	<u>0.380</u>	<u>0.370</u>	_____	_____	_____	_____	_____	_____	_____	_____	<u>0.392</u>
Average Casing Hole Diameter, in.....	<u>0.420</u>	<u>0.370</u>	<u>0.370</u>	_____	_____	_____	_____	_____	_____	_____	_____	<u>0.383</u>
Total Depth, in.....	<u>36.255</u>	<u>34.505</u>	<u>38.005</u>	_____	_____	_____	_____	_____	_____	_____	_____	<u>35.926</u>
Burr Height, in.....	<u>0.031</u>	<u>0.016</u>	<u>0.012</u>	_____	_____	_____	_____	_____	_____	_____	_____	<u>0.025</u>

WITNESSING INFORMATION

Date of Notice of Intent to Test: May 2nd 2006 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 [Signature] Perforating Projects Manager June 08th 2006 Explosivos Tecnologicos Argentinos S.A. Ruta 25Km.13 Pilar- Bs.As. Argentina
 _____ RECERTIFIED _____ (Company Official) (Title) (Date) (Company) (Address)