



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 FROM OWEN OIL TOOLS Explosive weight 39 gm, HMX powder, Case Material STEEL

Gun OD & Trade Name 7" OD, TAG, 12SPF, 135745° 39G, SuperHERO™, HMX Max Temp, °F 400 1 hr 3 hr 24 hr 100 hr 200 hr

Charge Name PERFORATOR, 4-1/2", SDP, 39G, SuperHERO™, HMX (SDP-4500-411NT3) Maximum Pressure Rating 13,500 psi, Carrier Material STEEL

Manufacturer Charge Part No. SDP-4500-411NT3 Date of Manufacture 5-29-2007 Shot Density Tested 12 Shots/ft \_\_\_\_\_

Gun Type SCALLOPED, EXPENDABLE, HOLLOW CARRIER Recommended Minimum ID for Running 7.625 in.

Phasing Tested 135745° degrees, Firing Order: X Top down X Bottom up Available Firing Mode: \_\_\_\_\_ Selective X Simultaneous

Debris Description SMALL STEEL PIECES Debris Weight NA gm/charge, Debris NA in<sup>3</sup>/charge

Remarks/Exceptions per Section 1.11 RDX VERSION AVAILABLE AS SDP-4500-311NT3

Casing Data 9-5/8" OD, Weight 47 lb/ft, API Grade, L-80 Date of Section 1 Test 11-7-2007

Target Data 144" OD, Amount of Cement 24,773 lb, Amount of Sand 49,365 lb, Amount of Water 12,870.26 lb.

Date of Compressive Strength Test 11-7-2007 Briquette Compressive Strength 6,213 psi, Age of Target 36 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.	0.00	1.39	0.76	0.21	1.68	0.21	0.76	1.39	0.00	1.39	0.76
Casing Hole Diameter, Short Axis, in	0.37	0.34	0.42	0.43	0.32	0.42	0.40	0.37	0.40	0.34	0.42
Casing Hole Diameter, Long Axis, in	0.41	0.35	0.42	0.44	0.32	0.45	0.43	0.37	0.41	0.34	0.44
Average Casing Hole Diameter, in.	0.40	0.35	0.42	0.44	0.32	0.44	0.42	0.37	0.41	0.34	0.43
Total Depth, in.	LOST	58.47	57.47	33.72	57.47	46.47	51.60	58.22	LOST	57.97	67.22
Burr Height, in.	0.053	0.042	0.111	0.064	0.040	0.077	0.062	0.039	0.036	0.040	0.117

  

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.	0.21	1.68	0.21	0.76	1.39	0.00	1.39					XXXXXX
Casing Hole Diameter, Short Axis, in	0.39	0.30	0.45	0.44	0.33	0.37	0.38					0.38
Casing Hole Diameter, Long Axis, in	0.42	0.32	0.45	0.44	0.34	0.39	0.38					0.39
Average Casing Hole Diameter, in.	0.41	0.31	0.45	0.44	0.34	0.38	0.38					0.39
Total Depth, in.	LOST	49.47	44.72	54.47	58.47	30.47	58.22					51.53
Burr Height, in.	0.052	0.020	0.063	0.079	0.048	0.049	0.053					0.050

Manufacturer's Certification

Type of Certification: \_\_\_\_\_ Self ALLEN PETTIGREW 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.

X CERTIFIED BY Allen Pettigrew VICE PRESIDENT - ENGINEERING 2-26-2008 OWEN OIL TOOLS 12001 CR 1000 GODLEY, TX 76044

RECERTIFIED \_\_\_\_\_ (Company Official) (Title) (Date) (Company) (Address)

Name of test as it should appear on website: 7" OD, TAG, 12SPF, 135745°, 39G, SuperHERO™ (SDP-4500-411NT3)

Name of test as it appears on application and application date: 7" TAG, 12SPF, 135745°, SDP-4500-411NT3 SuperHERO™ API 19B SECTION 1 TEST