

CERTIFICATE OF INSPECTION & TEST

(EN 10204 3.1)



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CARBON STEEL FITTINGS MADE FROM SEAMLESS PIPE

Date: **FEB.24.2014**

| | | | | | | | | | | |
|---|--|--|--|--|--|---------------------------------|--|-------|---------------------------------|--|
| Customer : PLESA ANAHUAC Y CIAS.,S.A.DE C.V. | | Contract No : 17200 (AMOUNT:USD35,424.28) | | | | Certificate No : MNJ8459 | | | | |
| Spec. for Material | | Spec. for Inspection | | | | Surface & Dimension | | N.D.E | Heat Treatment | |
| ASTM/ASME A/SA234-11 WPB (NACE MR0175) | | ASME B16.9 - 07 | | | | GOOD | | N/A | HOT FORMED (620℃ ~ 980℃) | |

| ITEM | STAMP NO. | CHEMICAL COMPOSITION (%) | | | | | | | | | | | Tensile Test | | | | Hardness Test(HB) | Hydrostatic Test | C.E |
|--------------------|-----------|--------------------------|------|------|------|-------|-------|------|------|------|------|------|--------------|---------|--------|--------|-------------------|------------------|-----|
| | | C | Si | Mn | P | S | Cr | Mo | Ni | Cu | V | Nb | Y-P MPA | T-S MPA | EL (%) | RA (%) | | | |
| SIZE | QTY | MIN | 0.10 | 0.29 | | | | | | | | | | 240 | 415 | 30 | | | |
| | | MAX | 0.30 | 1.06 | 0.05 | 0.058 | 0.40 | 0.15 | 0.40 | 0.40 | 0.08 | | | 655 | | | 197 | | |
| LR 45D ELBOW SCH80 | | | 0.21 | 0.25 | 0.55 | 0.01 | 0.007 | 0.02 | 0.01 | 0.04 | 0.02 | 0.02 | | 275 | 510 | 33.5 | | <197 | |
| 20" | 2 | 3220 | | | | | | | | | | | | | | | | | |
| LR 45D ELBOW SCH40 | | | 0.21 | 0.27 | 0.56 | 0.012 | 0.006 | 0.04 | 0.01 | 0.05 | 0.08 | 0.01 | | 260 | 470 | 30 | | <197 | |
| 18" | 2 | 7883 | | | | | | | | | | | | | | | | | |
| LR 45D ELBOW STD | | | 0.2 | 0.2 | 0.62 | 0.01 | 0.012 | 0.17 | 0.02 | 0.07 | 0.01 | 0.01 | | 263 | 455 | 34.5 | | <197 | |
| 18" | 10 | 1759 | | | | | | | | | | | | | | | | | |
| LR 90D ELBOW SCH80 | | | 0.19 | 0.23 | 0.51 | 0.018 | 0.008 | 0.05 | 0.01 | 0.02 | 0.01 | 0.01 | | 256 | 471 | 30 | | <197 | |
| 12" | 30 | 4806 | | | | | | | | | | | | | | | | | |
| LR 45D ELBOW STD | | | 0.2 | 0.25 | 0.54 | 0.015 | 0.016 | 0.09 | 0.01 | 0.05 | 0.01 | 0.01 | | 297 | 486 | 33 | | <197 | |
| 20" | 4 | 2985 | | | | | | | | | | | | | | | | | |

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirements called for by the above order.

EXPORT COUNTRY - BUSAN, KOREA
 COUNTRY OF ORIGIN - KOREA
 TOTAL WEIGHT : 14.772.00KGS

1MPa = 145.037 psi
 1MPa = 0.145037 ksi
 1psi = 0.00689 MPa
 1ksi = 6.89476 MPa

Reviewed by
 Witnessed by

C.E. = $C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$



 Manager of Q.A Dept.