DIRECTIONAL SURVEY REPORT

NEXEN PETROLEUM
OCS-G-2088 A4 ST3
VERMILION BLOCK 321

PREPARED BY: ROCK BRUNET

PathFinder Energy Services, Inc.
3329 West Pinhook Road, Lafayette, LA 70508
(337) 233-3982

\[ \text{\underline{\textbf{ULB = 135'}}} \]
May 8, 2003

TDMS (MS 5020)
Minerals Management Service
1201 Elmwood Park Blvd.
New Orleans, LA 70123-2394

Attn: Chris Gaudry

RE: NEXEN PETROLEUM
OCS-G-2088 A4 ST3
VERMILION BLOCK 321
RIG: NOBLE BILL JENNINGS
API NO.: 17-706-40082-03
OUR FILE NO.: J-GC-0304-0088

Dear Sir:

We hereby certify that the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.

SURVEY DATA
1 - Original survey report
1 - Survey report copies
1 - Survey diskette Filename: 008803.MMS

We appreciate the opportunity to work with you and we look forward to your business support. If you have any questions, I can be reached at (337) 233-3982.

Sincerely,

Rock Brunet
LWD Service Coordinator
PathFinder Energy Services

CC: Nexen Pet. / Jim McFarland – 1 Survey
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES

2. NAME OF PERSON(S) PERFORMING SURVEY: A) CARLOS CONTRERAS  
   B) JOEY HAINS  
   C) MIKE ANGELLE

3. POSITION OF SAID PERSON(S): (A-C) SURVEYORS (FIELD ENGINEERS)

4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 04/22/03 TO 05/01/03

5. STATE IN WHICH SURVEY WAS PERFORMED: OFFSHORE, LOUISIANA

6. LOCATION OF WELL: VERMILION BLOCK 321

7. TYPE OF SURVEY(S) PERFORMED: MWD

8. COMPLETE IDENTIFICATION OF WELL:
   NEXEN PETROLEUM
   OCS-G-2088 A4 ST3
   VERMILION BLOCK 321
   RIG: NOBLE BILL JENNINGS
   API NO.: 17-706-40082-03

9. SURVEY(S) CERTIFIED FROM: 8,793 TO 9,763 FEET MEASURED DEPTH.

10. SURVEY DISKETTE(S) ARE INCLUDED AND ARE IN ACCORDANCE WITH MMS FORMAT. THE FILENAME IS: 008803.MMS

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 2,217.58 FEET ON A BEARING OF 355.97 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT PROJECTED MEASURED DEPTH OF 9,806 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

ROCK BRUNET
LWD SERVICE COORDINATOR
Survey Reference: WELLHEAD
Reference World Coordinates: Lat. 28.17.55 N - Lon. 92.34.45 W
Reference GRID System: LAMBERT Zone: Louisiana South
Reference GRID Coordinates: 1598922.00 X -131705.99 Y
North Aligned to: GRID NORTH
Vertical Section Reference: WELLHEAD
Closure Reference: WELLHEAD
TVD Reference: WELLHEAD

NEXEN PETROLEUM USA, INC
OCS-G-2088 A4 ST3
VERMILION BLK. 321
NOBLE BILL JENNINGS

DECL: 3.22° EAST TO GRID
KBH: 135° RKB TO MSL

PATHFINDER OFFICE SUPERVISOR
A.J. BROUSSARD
PATHFINDER FIELD ENGINEERS
CARLOS CONTRERAS / JOEY HAINS
MIKE ANGELLE

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Pathfinder
Survey Report

Calculated using the Minimum Curvature Method
Computed using PDS VER2.6
Vertical Section Plane: 354.68 deg.

Survey Reference: WELLHEAD
Reference World Coordinates: Lat. 28.17.55 N - Lon. 92.34.45 W
Reference GRID System: LAMBERT Zone: Louisiana South
Reference GRID Coordinates: 1598922.00 X -131705.99 Y
North Aligned to: GRID NORTH
Vertical Section Reference: WELLHEAD
Closure Reference: WELLHEAD
TVD Reference: WELLHEAD

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DECL: 3.22° EAST TO GRID
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PATHFINDER OFFICE SUPERVISOR
A.J. BROUSSARD
PATHFINDER FIELD ENGINEERS
CARLOS CONTRERAS / JOEY HAINS
MIKE ANGELLE

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<th>Measured Depth</th>
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<th>Drift Dir.</th>
<th>TVD</th>
<th>Subsea Depth</th>
<th>Vertical Section</th>
<th>TOTAL Rectangular Offsets</th>
<th>Closure Dist.</th>
<th>Dir. (deg.)</th>
<th>DLS (dg/100ft)</th>
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8851.00 27.35 11.67 8685.24 8550.24 1531.73 1516.84 N 231.07W 1534.33@351.34 6.24
8945.00 33.06 10.29 8766.45 8631.45 1577.11 1563.25 N 222.11W 1578.95@351.91 6.12
8990.00 35.53 10.81 8803.62 8668.62 1601.49 1588.17 N 217.46W 1602.95@352.20 5.53
9040.00 39.31 10.60 8843.33 8708.33 1630.69 1618.02 N 211.82W 1631.83@352.54 7.56
9076.00 41.50 10.10 8870.74 8735.74 1653.16 1640.98 N 207.63W 1654.06@352.79 6.15
9108.00 43.53 9.62 8894.32 8759.32 1674.03 1662.28 N 203.93W 1674.74@353.01 6.42
9134.00 45.37 9.29 8912.88 8777.88 1691.63 1680.24 N 200.94W 1692.21@353.18 7.13
9170.00 47.31 7.83 8937.74 8802.74 1716.92 1705.99 N 197.07W 1717.34@353.41 6.14
9202.00 49.98 6.68 8959.09 8824.09 1740.18 1729.53 N 194.07W 1740.45@353.60 5.87
9228.00 50.12 5.50 8975.96 8840.96 1759.57 1749.31 N 191.97W 1759.81@353.74 5.58
9264.00 52.14 4.37 8996.55 8863.55 1787.15 1777.23 N 189.58W 1787.31@353.91 6.12
9296.00 52.58 3.70 9018.09 8883.09 1812.15 1802.51 N 187.78W 1812.26@354.05 2.15
9388.00 52.67 4.19 9073.94 8938.94 1884.31 1875.44 N 182.75W 1884.33@354.43 0.43
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**STRAIGHT LINE PROJECTION TO THE BIT @ 9806' MD.**

9806.00 55.31 5.07 9320.07 9185.07 2217.02 2212.08 N 155.98W 2217.58@355.97 0.00