30-025-40898

Weatherford®

Drilling Services

Proposal

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devon

THISTLE UNIT 33 STATE 43H

LEA COUNTY, NM

WELL FILE: **PLAN 1**

DECEMBER 18, 2012

Weatherford International, Ltd.
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devon

Thistle Unit 33 State 43H
Lea County, New Mexico

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	359.56	0.00	0.00	0.00	0.00	0.00	0.00	
2	10710.23	0.00	359.56	10710.23	0.00	0.00	0.00	0.00	0.00	
3	11595.37	88.51	359.56	11283.00	558.09	-4.29	10.00	359.56	558.10	
4	15799.73	88.51	359.56	11392.00	4760.91	-36.59	0.00	0.00	4761.05	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Thistle Unit 33 State 43H	0.00	0.00	457163.15	772899.82	32°15'16.537N	103°35'03.359W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	11392.00	4760.91	-36.59	461924.06	772863.23	Rectangle (4204x50)

SITE DETAILS

Thistle Unit 33 State 43H

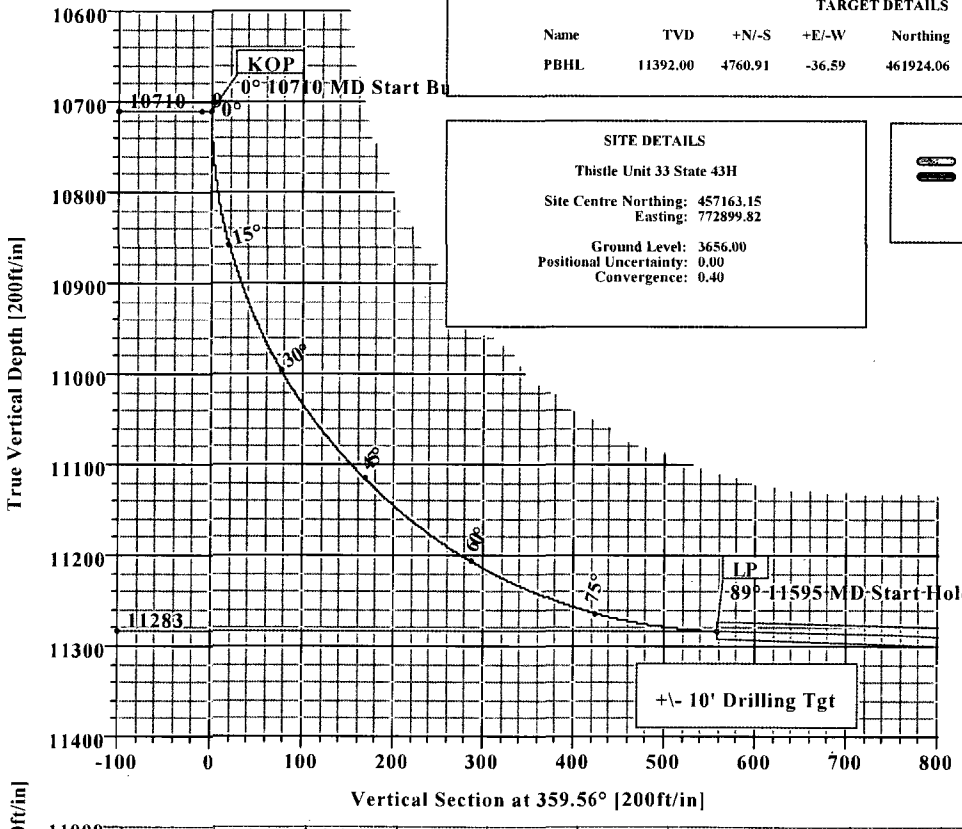
Site Centre Northing: 457163.15
Easting: 772899.82

Ground Level: 3656.00
Positional Uncertainty: 0.00
Convergence: 0.40

LEGEND

1
Plan #1

KB ELEV: 3681
GL ELEV: 3656



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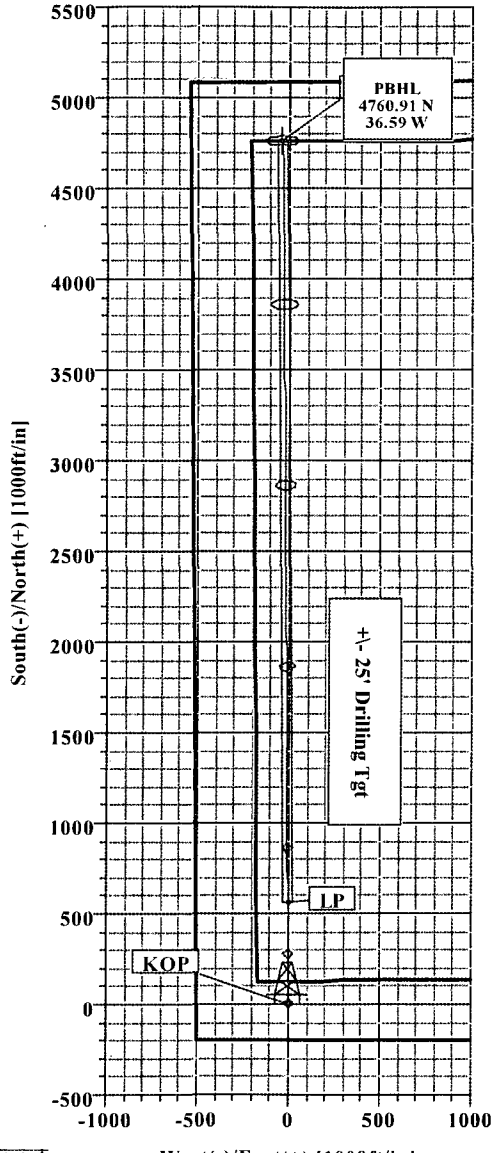
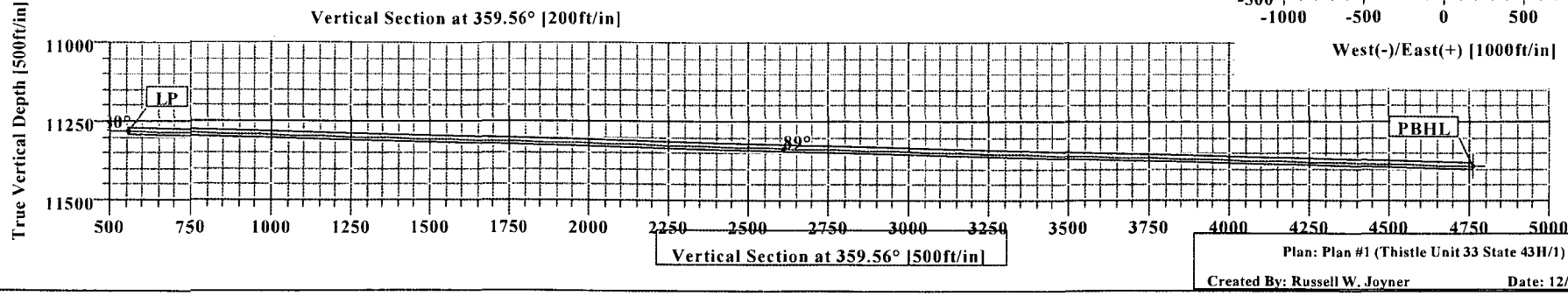




Plan: Plan #1 (Thistle Unit 33 State 43H/1)

Created By: Russell W. Joyner Date: 12/18/2012

Weatherford
Wft Plan Report X Y's.

Company:	Devon Energy	**Date:** 12/18/2012 **Time:** 12:11:05	**Page:** 1
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Thistle Unit 33 State 43H
Site:	Thistle Unit 33 State 43H	**Vertical (TVD) Reference:**	SITE 3681.0
Well:	Thistle Unit 33 State 43H	**Section (VS) Reference:**	Well (0.00N,0.00E,359.56Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Plan:	Plan #1	**Date Composed:**	12/18/2012
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Site: Thistle Unit 33 State 43H

Site Position:		**Northing:**	457163.15 ft	**Latitude:**	32 15 16.537 N
From:	Map	**Easting:**	772899.82 ft	**Longitude:**	103 35 3.359 W
Position Uncertainty:	0.00 ft			**North Reference:**	Grid
Ground Level:	3656.00 ft			**Grid Convergence:**	0.40 deg

Well: Thistle Unit 33 State 43H **Slot Name:**

Well Position:	+N/-S	0.00 ft	**Northing:**	457163.15 ft	**Latitude:**	32 15 16.537 N
	+E/-W	0.00 ft	**Easting :**	772899.82 ft	**Longitude:**	103 35 3.359 W
Position Uncertainty:		0.00 ft				

Wellpath: 1		**Drilled From:**	Surface
		Tie-on Depth:	0.00 ft
Current Datum: SITE	**Height** 3681.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data: 5/15/2013		**Declination:**	7.36 deg
Field Strength: 48467 nT		**Mag Dip Angle:**	60.17 deg

Vertical Section: Depth From (TVD) ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
0.00	0.00	0.00	359.56

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	359.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10710.23	0.00	359.56	10710.23	0.00	0.00	0.00	0.00	0.00	0.00	
11595.37	88.51	359.56	11283.00	558.09	-4.29	10.00	10.00	0.00	359.56	
15799.73	88.51	359.56	11392.00	4760.91	-36.59	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
10700.00	0.00	359.56	10700.00	0.00	0.00	0.00	0.00	457163.15	772899.82	
10710.23	0.00	359.56	10710.23	0.00	0.00	0.00	0.00	457163.15	772899.82	KOP
10750.00	3.98	359.56	10749.97	1.38	-0.01	1.38	10.00	457164.53	772899.81	
10800.00	8.98	359.56	10799.63	7.02	-0.05	7.02	10.00	457170.17	772899.77	
10850.00	13.98	359.56	10848.62	16.96	-0.13	16.96	10.00	457180.11	772899.69	
10900.00	18.98	359.56	10896.55	31.14	-0.24	31.14	10.00	457194.29	772899.58	
10950.00	23.98	359.56	10943.06	49.44	-0.38	49.44	10.00	457212.59	772899.44	
11000.00	28.98	359.56	10987.80	71.72	-0.55	71.73	10.00	457234.87	772899.27	
11050.00	33.98	359.56	11030.43	97.82	-0.75	97.83	10.00	457260.97	772899.07	
11100.00	38.98	359.56	11070.63	127.54	-0.98	127.54	10.00	457290.69	772898.84	
11150.00	43.98	359.56	11108.07	160.64	-1.23	160.65	10.00	457323.79	772898.59	
11200.00	48.98	359.56	11142.50	196.88	-1.51	196.89	10.00	457360.03	772898.31	
11250.00	53.98	359.56	11173.63	235.99	-1.81	236.00	10.00	457399.14	772898.01	
11300.00	58.98	359.56	11201.23	277.66	-2.13	277.67	10.00	457440.81	772897.69	
11350.00	63.98	359.56	11225.10	321.57	-2.47	321.58	10.00	457484.72	772897.35	
11400.00	68.98	359.56	11245.05	367.40	-2.82	367.41	10.00	457530.55	772897.00	
11450.00	73.98	359.56	11260.93	414.80	-3.19	414.81	10.00	457577.95	772896.63	
11500.00	78.98	359.56	11272.62	463.39	-3.56	463.41	10.00	457626.54	772896.26	
11550.00	83.98	359.56	11280.02	512.82	-3.94	512.84	10.00	457675.97	772895.88	
11595.37	88.51	359.56	11283.00	558.09	-4.29	558.10	10.00	457721.24	772895.53	LP
11600.00	88.51	359.56	11283.12	562.71	-4.32	562.73	0.00	457725.86	772895.50	
11700.00	88.51	359.56	11285.71	662.67	-5.09	662.69	0.00	457825.82	772894.73	
11800.00	88.51	359.56	11288.30	762.64	-5.86	762.66	0.00	457925.79	772893.96	

Weatherford
Wft Plan Report X Y's.

Company:	Devon Energy	**Date:** 12/18/2012 **Time:** 12:11:05	**Page:** 2
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Thistle Unit 33 State 43H
Site:	Thistle Unit 33 State 43H	**Vertical (TVD) Reference:**	SITE 3681.0
Well:	Thistle Unit 33 State 43H	**Section (VS) Reference:**	Well (0.00N,0.00E,359.56Azi)
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
11900.00	88.51	359.56	11290.89	862.60	-6.63	862.63	0.00	458025.75	772893.19	
12000.00	88.51	359.56	11293.49	962.57	-7.40	962.59	0.00	458125.72	772892.42	
12100.00	88.51	359.56	11296.08	1062.53	-8.17	1062.56	0.00	458225.68	772891.65	
12200.00	88.51	359.56	11298.67	1162.49	-8.93	1162.53	0.00	458325.64	772890.89	
12300.00	88.51	359.56	11301.26	1262.46	-9.70	1262.49	0.00	458425.61	772890.12	
12400.00	88.51	359.56	11303.86	1362.42	-10.47	1362.46	0.00	458525.57	772889.35	
12500.00	88.51	359.56	11306.45	1462.38	-11.24	1462.43	0.00	458625.53	772888.58	
12600.00	88.51	359.56	11309.04	1562.35	-12.01	1562.39	0.00	458725.50	772887.81	
12700.00	88.51	359.56	11311.63	1662.31	-12.78	1662.36	0.00	458825.46	772887.04	
12800.00	88.51	359.56	11314.23	1762.27	-13.54	1762.32	0.00	458925.42	772886.28	
12900.00	88.51	359.56	11316.82	1862.24	-14.31	1862.29	0.00	459025.39	772885.51	
13000.00	88.51	359.56	11319.41	1962.20	-15.08	1962.26	0.00	459125.35	772884.74	
13100.00	88.51	359.56	11322.01	2062.16	-15.85	2062.22	0.00	459225.31	772883.97	
13200.00	88.51	359.56	11324.60	2162.13	-16.62	2162.19	0.00	459325.28	772883.20	
13300.00	88.51	359.56	11327.19	2262.09	-17.39	2262.16	0.00	459425.24	772882.43	
13400.00	88.51	359.56	11329.78	2362.05	-18.15	2362.12	0.00	459525.20	772881.67	
13500.00	88.51	359.56	11332.38	2462.02	-18.92	2462.09	0.00	459625.17	772880.90	
13600.00	88.51	359.56	11334.97	2561.98	-19.69	2562.06	0.00	459725.13	772880.13	
13700.00	88.51	359.56	11337.56	2661.94	-20.46	2662.02	0.00	459825.09	772879.36	
13800.00	88.51	359.56	11340.15	2761.91	-21.23	2761.99	0.00	459925.06	772878.59	
13900.00	88.51	359.56	11342.75	2861.87	-21.99	2861.95	0.00	460025.02	772877.83	
14000.00	88.51	359.56	11345.34	2961.83	-22.76	2961.92	0.00	460124.98	772877.06	
14100.00	88.51	359.56	11347.93	3061.80	-23.53	3061.89	0.00	460224.95	772876.29	
14200.00	88.51	359.56	11350.52	3161.76	-24.30	3161.85	0.00	460324.91	772875.52	
14300.00	88.51	359.56	11353.12	3261.72	-25.07	3261.82	0.00	460424.87	772874.75	
14400.00	88.51	359.56	11355.71	3361.69	-25.84	3361.79	0.00	460524.84	772873.98	
14500.00	88.51	359.56	11358.30	3461.65	-26.60	3461.75	0.00	460624.80	772873.22	
14600.00	88.51	359.56	11360.89	3561.61	-27.37	3561.72	0.00	460724.76	772872.45	
14700.00	88.51	359.56	11363.49	3661.58	-28.14	3661.69	0.00	460824.73	772871.68	
14800.00	88.51	359.56	11366.08	3761.54	-28.91	3761.65	0.00	460924.69	772870.91	
14900.00	88.51	359.56	11368.67	3861.50	-29.68	3861.62	0.00	461024.65	772870.14	
15000.00	88.51	359.56	11371.27	3961.47	-30.45	3961.58	0.00	461124.62	772869.37	
15100.00	88.51	359.56	11373.86	4061.43	-31.21	4061.55	0.00	461224.58	772868.61	
15200.00	88.51	359.56	11376.45	4161.39	-31.98	4161.52	0.00	461324.54	772867.84	
15300.00	88.51	359.56	11379.04	4261.36	-32.75	4261.48	0.00	461424.51	772867.07	
15400.00	88.51	359.56	11381.64	4361.32	-33.52	4361.45	0.00	461524.47	772866.30	
15500.00	88.51	359.56	11384.23	4461.29	-34.29	4461.42	0.00	461624.44	772865.53	
15600.00	88.51	359.56	11386.82	4561.25	-35.06	4561.38	0.00	461724.40	772864.76	
15700.00	88.51	359.56	11389.41	4661.21	-35.82	4661.35	0.00	461824.36	772864.00	
15799.73	88.51	359.56	11392.00	4760.91	-36.59	4761.05	0.00	461924.06	772863.23	PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg	Min	Sec	<--- Longitude ---> Deg	Min	Sec
PBHL -Rectangle (4204x50)	1.49	359.56	11392.00	4760.91	-36.59	461924.06	772863.23	32	16	3.649 N	103	35	3.398 W

Weatherford
Wft Plan Report X Y's.

Company:	Devon Energy	**Date:**	12/18/2012	**Time:**	12:11:05 **Page:** 3
Field:	Lea County, New Mexico (NAD 83)	**Co-ordinate(NE) Reference:**	Well: Thistle Unit 33 State 43H		
Site:	Thistle Unit 33 State 43H	**Vertical (TVD) Reference:**	SITE 3681.0		
Well:	Thistle Unit 33 State 43H	**Section (VS) Reference:**	Well (0.00N,0.00E,359.56Azi)		
Wellpath:	1	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
10710.23	10710.23	KOP
11595.37	11283.00	LP
15799.73	11392.00	PBHL

Weatherford Drilling Services

GeoDec v5.03

Report Date:	December 18, 2012
Job Number:	
Customer:	Devon Energy
Well Name:	Thistle Unit 33 State 43H
API Number:	
Rig Name:	
Location:	Lea County, NM
Block:	
Engineer:	RWJ

US State Plane 1983
System: New Mexico Eastern Zone
Projection: Transverse Mercator/Gauss Kruger
Datum: North American Datum 1983
Ellipsoid: GRS 1980
North/South 457163.150 USFT
East/West 772899.820 USFT
Grid Convergence: .40°
Total Correction: +7.09°

Geodetic Latitude / Longitude
System: Latitude / Longitude
Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Latitude 32.2545960 DEG
Longitude -103.5842613 DEG

Geodetic Location WGS84		Elevation = 0.0 Meters
Latitude =	32.25460° N	32° 15 min 16.546 sec
Longitude =	103.58426° W	103° 35 min 3.341 sec

Magnetic Declination =	7.49°	[True North Offset]	
Local Gravity =	.9988 g	CheckSum =	6557
Local Field Strength =	48463 nT	Magnetic Vector X =	23932 nT
Magnetic Dip =	60.13°	Magnetic Vector Y =	3145 nT
Magnetic Model =	bggm2012	Magnetic Vector Z =	42024 nT
Spud Date =	Mar 15, 2013	Magnetic Vector H =	24138 nT

Signed:_____ Date:_____

Fluid Technology

ContiTech Beattie Corp.
Webs" www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as ' ' ıded and suitable for the application regardless of whether the hose is secured or unsecured ' ' configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Pr on, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a f : but in no way does the lifting and safety equipment affect the performance of the hoses prov the hoses have been handled and installed correctly It is good practice to use lifting & safety equipment but not mandatory

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.co m

Continental CONTITECH

Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE

CERT. N°: 1713

PURCHASER:	ContiTech Beattie Co.	P.O. N°:	002808
CONTITECH ORDER N°:	426127	HOSE TYPE:	3" ID Choke and Kill Hose
HOSE SERIAL N°:	53622	NOMINAL / ACTUAL LENGTH:	10,67 m

W.P.	68,96	MPa	10000	psi	T.P. 103,4	MPa	15000	psi

Duration: 60 min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.

→ 10 mm = 25 MPa

COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	5503 2029	AISI 4130	N1590P
4 1/16" Flange end		AISI 4130	27566

INFOCHIP INSTALLED

API Spec 16 C
Temperature rate:"B"

All metal parts are flawless

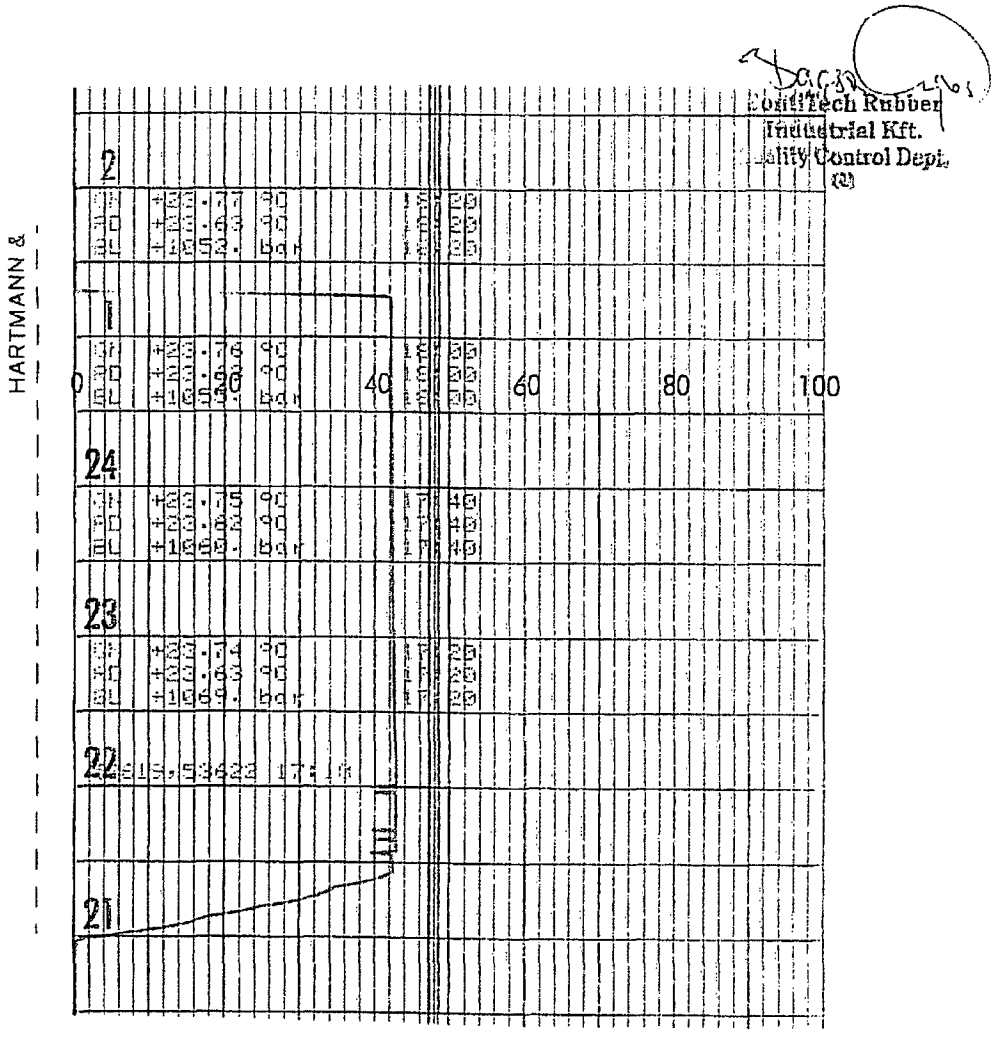
Hose conform to NACE MR 01-75

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

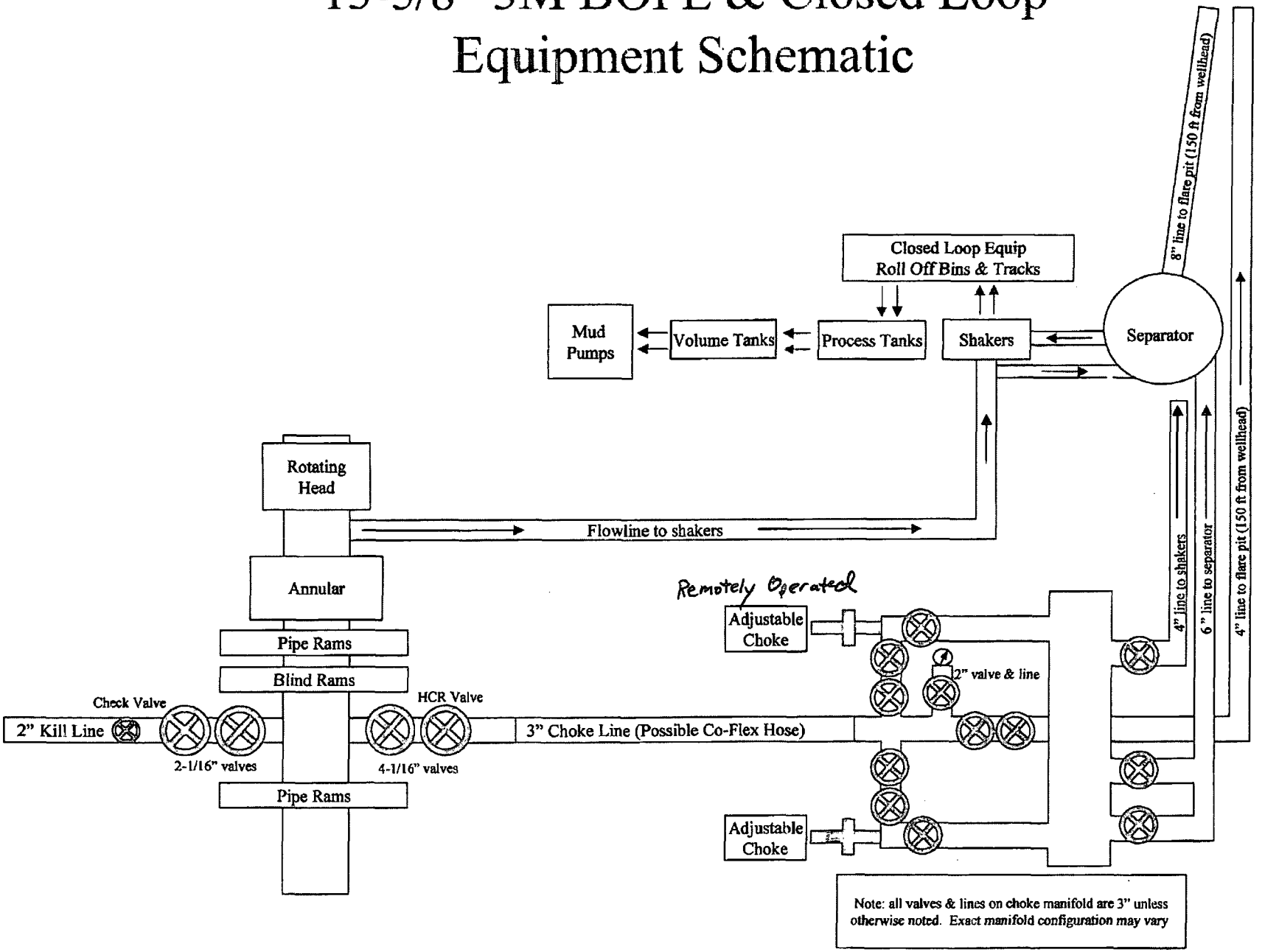
COUNTRY OF ORIGIN HUNGARY/EU

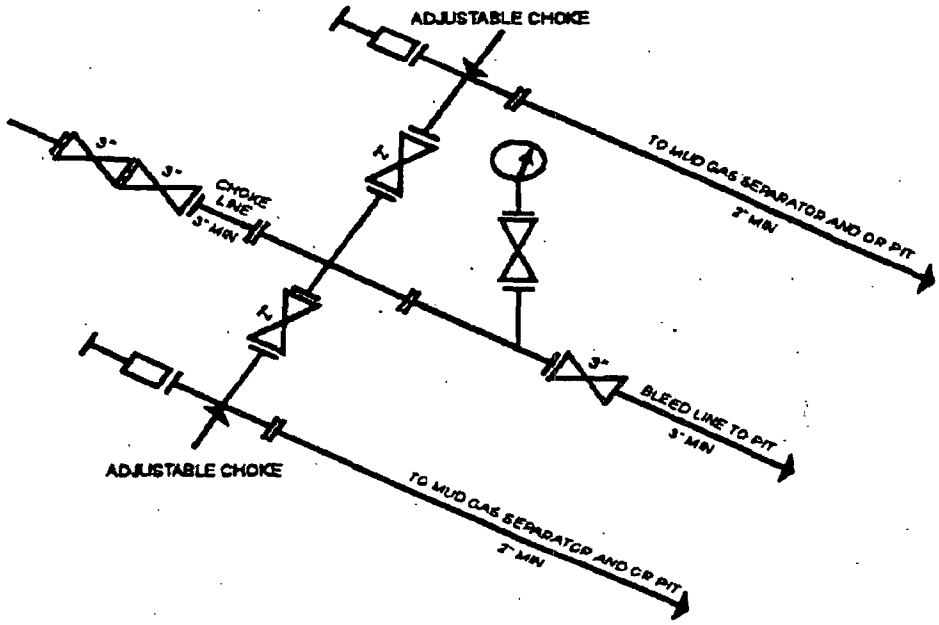
Date:	Inspector	Quality Control
25. August. 2008		ContiTech Rubber Industrial Kft. Quality Control Dept.



Contitech Rubber
Industrial Kft.
Quality Control Dept.

13-5/8" 3M BOPE & Closed Loop Equipment Schematic

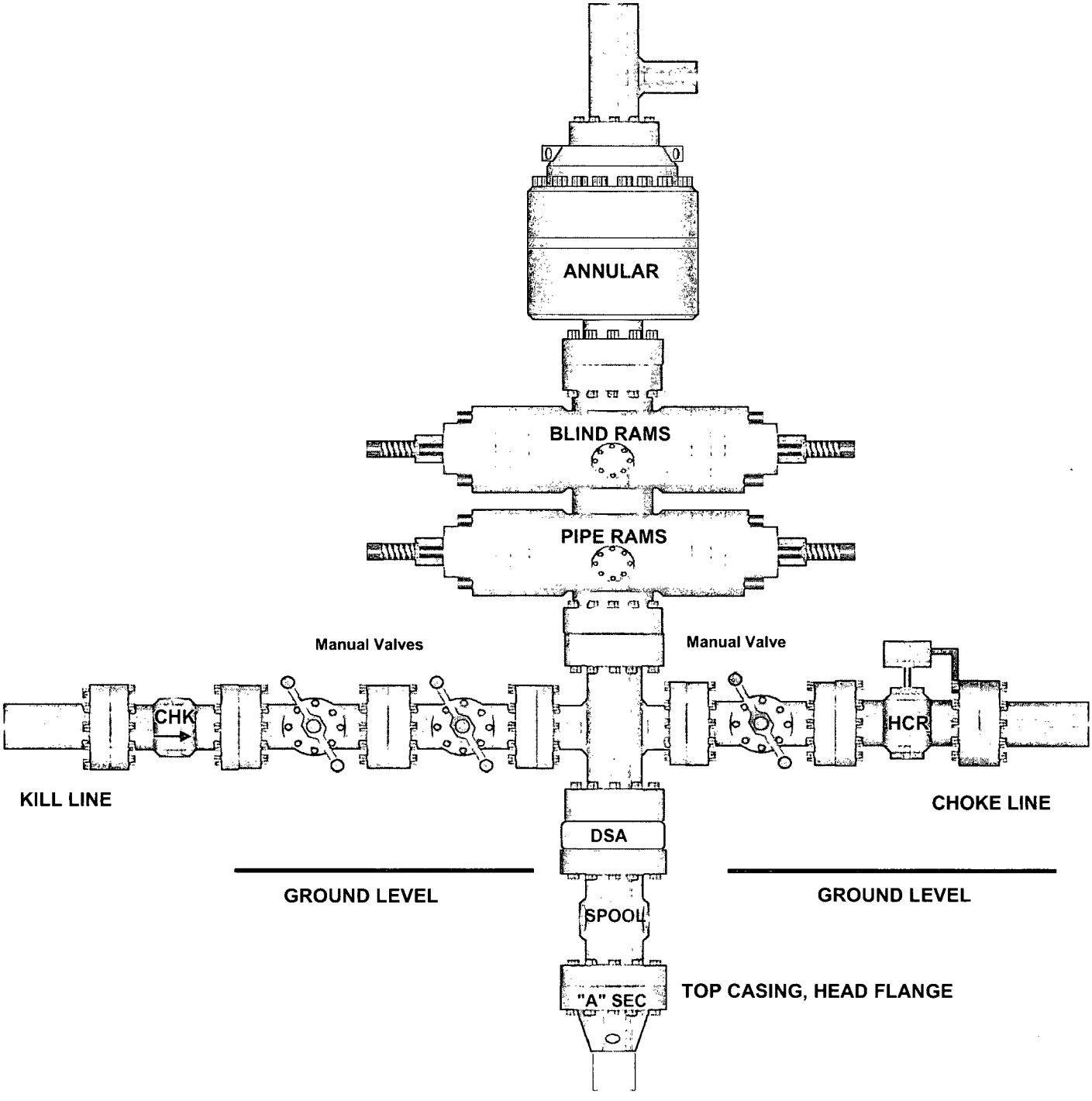




3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

[54 FR 39528, Sept. 27, 1989]

13-5/8" x 3,000 psi BOP Stack



H&P Flex Rig Location Layout