CORRECTION #1

KANSAS CORPORATION COMMISSION 1108436
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34574
Name: Shell Gulf of Mexico Inc.
Address 1: 150 N DAIRY-ASHFORD (77079)
Address 2: PO BOX 576 (77001-0576)
City: HOUSTON State: TX Zip: 77001 + 0576
Contact Person: Damonica Pierson
Phone: (832) 337-2172
CONTRACTOR: License # 34718
Name: Nabors Drilling USA, LP
Wellsite Geologist: Abby Woody
Purchaser:

Designate Type of Completion:

- [x] New Well [ ] Re-Entry [ ] Workover
- [x] Oil [ ] WSW [ ] SWD [ ] SIOW
- [ ] Gas [ ] D&A [ ] ENHR [ ] SIGW
- [ ] OG [ ] GSW [ ] Temp. Abd.
- [ ] CM (Coal Bed Methane)
- [ ] Cathodic [ ] Other (Core, Expl., etc.):

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening [ ] Re-perf. [ ] Conv. to ENHR [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

10/06/2012	11/08/2012	01/12/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-21853-01-00
Spot Description:
W2 SW SE SE Sec. 10 Twp. 33 S. R. 7 [ ] East [x] West
330 Feet from [ ] North / [x] South Line of Section
1075 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Harper
Lease Name: HUDGENS 3307 Well #: 10-2H
Field Name: Wildcat
Producing Formation: Mississippi
Elevation: Ground: 1365 Kelly Bushing: 1389
Total Depth: 9172 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 525 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 0 ppm Fluid volume: 0 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:
Operator Name: Plumb Thicket Landfill
Lease Name: N/A License #: 99999
Quarter SW Sec. 4 Twp. 31 S. R. 6 [ ] East [x] West
County: Harper Permit #: KDHE Permit No. 0842

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [x] Letter of Confidentiality Received
  Date: 07/19/2012
- [ ] Confidential Release Date:
- [ ] Wireline Log Received
- [ ] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: NAOMI JAMES Date: 01/23/2013

Shell Exploration & Production Co. Inc.

Harper Co. KS (NAD-27)
Sec 10-T33S-R07W
Hudgens 3307 #10-2H
9778333
Wellbore #2

Design: Wellbore #2

Sperry Drilling Services

Combo Report With Grid North & True North

10 December, 2012

Surface UWI : 9778333

Well Coordinates: 187,889.00 N, 2,127,931.63 E (37° 10' 54.66" N, 098° 03' 39.22" W)
Ground Level: 1,363.00 ft

Local Coordinate Origin:	Centered on Well Hudgens 3307 #10-2H
Viewing Datum:	WELL @ 1394.70ft (Nabors 102 (31.7'))
TVDs to System:	N
North Reference:	True
Unit System:	API US New

Version: 2003.21 Build: 46

HALLIBURTON

Design Report for Hudgens 3307 #10-2H - Wellbore #2

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	True Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (ft)	Map Coordinates Easting (ft)	Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
0.00	0.00	359.73	0.00	-1,394.70	0.00	0.00 N	0.00 E	187,889.00	2,127,931.63	0.00	0.00	
187.00	1.12	167.81	168.08	-1,207.71	186.99	1.79 S	0.38 E	187,887.21	2,127,932.02	0.60	1.82	
216.00	2.12	187.45	187.72	-1,178.72	215.98	2.60 S	0.36 E	187,886.40	2,127,932.01	3.90	2.62	
250.00	2.54	181.12	181.39	-1,144.75	249.95	3.97 S	0.26 E	187,885.03	2,127,931.91	1.45	3.97	
280.00	3.10	185.27	185.54	-1,114.79	279.91	5.45 S	0.17 E	187,883.56	2,127,931.82	1.99	5.42	
311.00	3.91	182.52	182.79	-1,083.85	310.85	7.34 S	0.03 E	187,881.66	2,127,931.70	2.67	7.27	
341.00	4.97	185.62	185.89	-1,053.94	340.76	9.65 S	0.15 W	187,879.35	2,127,931.53	3.62	9.54	
401.00	6.64	186.91	187.18	-994.25	400.45	15.68 S	0.85 W	187,873.32	2,127,930.85	2.79	15.41	
469.00	7.36	185.95	186.22	-926.75	467.95	23.91 S	1.81 W	187,865.08	2,127,929.93	1.07	23.43	
544.00	6.94	185.54	185.81	-852.34	542.36	33.19 S	2.79 W	187,855.80	2,127,928.99	0.56	32.49	
605.00	8.29	180.68	180.95	-791.88	602.82	41.26 S	3.24 W	187,847.73	2,127,928.59	2.45	40.42	
696.00	10.20	160.58	160.85	-702.04	692.66	55.43 S	0.70 W	187,833.57	2,127,931.19	4.09	54.81	
786.00	11.12	149.06	149.33	-613.58	781.12	70.43 S	6.34 E	187,818.60	2,127,938.30	2.57	70.63	
884.00	12.08	137.51	137.78	-517.57	877.13	86.15 S	18.05 E	187,802.94	2,127,950.09	2.56	87.81	
976.00	12.57	132.12	132.39	-427.69	967.01	100.03 S	31.92 E	187,789.12	2,127,964.02	1.36	103.47	
1,070.00	13.41	131.83	132.10	-336.10	1,058.60	114.23 S	47.56 E	187,774.99	2,127,979.73	0.90	119.69	
1,164.00	14.73	132.00	132.27	-244.92	1,149.78	129.58 S	64.49 E	187,759.72	2,127,996.73	1.40	137.21	
1,259.00	15.74	132.54	132.81	-153.26	1,241.44	146.46 S	82.88 E	187,742.93	2,128,015.20	1.07	156.46	
1,353.00	15.32	130.24	130.51	-62.69	1,332.01	163.19 S	101.68 E	187,726.29	2,128,034.07	0.79	175.62	
1,543.00	12.98	124.00	124.27	121.54	1,516.24	191.52 S	138.40 E	187,698.14	2,128,070.93	1.47	208.72	
1,732.00	14.19	128.13	128.40	305.26	1,699.96	217.86 S	174.10 E	187,671.96	2,128,106.75	0.82	239.72	
1,920.00	15.17	125.59	125.86	487.12	1,881.82	246.58 S	212.09 E	187,643.42	2,128,144.88	0.62	273.39	
2,110.00	15.57	132.93	133.20	670.34	2,065.04	278.61 S	250.83 E	187,611.58	2,128,183.77	1.04	310.43	
2,299.00	14.41	133.67	133.94	852.91	2,247.61	312.29 S	286.26 E	187,578.06	2,128,219.36	0.62	348.66	
2,487.00	14.36	132.33	132.60	1,035.01	2,429.71	344.30 S	320.26 E	187,546.21	2,128,253.51	0.18	385.04	
2,676.00	14.09	131.47	131.74	1,218.22	2,612.92	375.48 S	354.68 E	187,515.19	2,128,288.08	0.18	420.66	
2,865.00	14.51	129.38	129.65	1,401.36	2,796.06	405.91 S	390.08 E	187,484.94	2,128,323.62	0.35	455.66	
3,054.00	13.08	125.99	126.26	1,584.91	2,979.61	433.67 S	425.56 E	187,457.34	2,128,359.22	0.87	488.03	
3,148.00	12.22	121.52	121.79	1,676.63	3,071.33	445.20 S	442.59 E	187,445.89	2,128,376.31	1.39	501.79	
3,242.00	11.50	124.43	124.70	1,768.62	3,163.32	455.77 S	458.75 E	187,435.39	2,128,392.52	1.00	514.49	
3,337.00	11.49	128.22	128.49	1,861.72	3,256.42	467.05 S	473.94 E	187,424.18	2,128,407.77	0.79	527.75	
3,431.00	10.15	130.86	131.13	1,954.05	3,348.75	478.33 S	487.51 E	187,412.97	2,128,421.39	1.52	540.78	
3,526.00	9.57	136.67	136.94	2,047.64	3,442.34	489.61 S	499.21 E	187,401.75	2,128,433.14	1.21	553.56	
3,620.00	7.30	138.92	139.19	2,140.62	3,535.32	499.84 S	508.45 E	187,391.56	2,128,442.42	2.44	564.96	
3,715.00	6.31	135.23	135.50	2,234.95	3,629.65	508.13 S	516.05 E	187,383.31	2,128,450.07	1.14	574.22	
3,809.00	4.45	138.42	138.69	2,328.53	3,723.23	514.55 S	522.08 E	187,376.91	2,128,456.13	2.00	581.41	
3,903.00	3.34	135.35	135.62	2,422.32	3,817.02	519.25 S	526.40 E	187,372.24	2,128,460.47	1.20	586.65	

Design Report for Hudgens 3307 #10-2H - Wellbore #2

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	True Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (ft)	Map Coordinates Easting (ft)	Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
3,998.00	1.33	142.95	143.22	2,517.23	3,911.93	522.11 S	529.00 E	187,369.39	2,128,463.08	2.14	589.85	
4,029.00	1.09	142.87	143.14	2,548.22	3,942.92	522.63 S	529.39 E	187,368.87	2,128,463.47	0.77	590.42	
4,061.00	0.98	144.30	144.57	2,580.22	3,974.92	523.10 S	529.73 E	187,368.40	2,128,463.82	0.35	590.93	
4,092.00	2.77	151.95	152.22	2,611.20	4,005.90	523.98 S	530.23 E	187,367.52	2,128,464.32	5.82	591.87	
4,124.00	5.13	164.13	164.40	2,643.12	4,037.82	526.04 S	530.98 E	187,365.47	2,128,465.08	7.79	594.01	
4,155.00	8.12	166.01	166.28	2,673.91	4,068.61	529.50 S	531.87 E	187,362.01	2,128,465.99	9.67	597.56	
4,187.00	10.91	166.76	167.03	2,705.47	4,100.17	534.65 S	533.09 E	187,356.87	2,128,467.23	8.73	602.83	
4,218.00	13.68	172.34	172.61	2,735.76	4,130.46	541.15 S	534.22 E	187,350.38	2,128,468.39	9.71	609.42	
4,250.00	16.76	176.26	176.53	2,766.63	4,161.33	549.51 S	534.98 E	187,342.02	2,128,469.19	10.14	617.81	
4,281.00	19.28	177.53	177.80	2,796.11	4,190.81	559.09 S	535.45 E	187,332.44	2,128,469.71	8.23	627.36	
4,312.00	21.80	177.29	177.56	2,825.14	4,219.84	569.95 S	535.89 E	187,321.58	2,128,470.20	8.13	638.18	
4,344.00	23.97	177.15	177.42	2,854.62	4,249.32	582.38 S	536.44 E	187,309.15	2,128,470.80	6.78	650.57	
4,376.00	26.77	177.06	177.33	2,883.53	4,278.23	596.08 S	537.07 E	187,295.46	2,128,471.50	8.75	664.22	
4,407.00	29.90	177.51	177.78	2,910.81	4,305.51	610.78 S	537.69 E	187,280.76	2,128,472.19	10.12	678.87	
4,438.00	32.95	177.16	177.43	2,937.26	4,331.96	626.92 S	538.37 E	187,264.62	2,128,472.94	9.86	694.95	
4,470.00	35.96	176.54	176.81	2,963.64	4,358.34	645.00 S	539.28 E	187,246.55	2,128,473.94	9.47	712.98	
4,501.00	38.80	175.87	176.14	2,988.27	4,382.97	663.78 S	540.44 E	187,227.77	2,128,475.19	9.25	731.75	
4,533.00	41.22	175.87	176.14	3,012.78	4,407.48	684.31 S	541.83 E	187,207.25	2,128,476.67	7.56	752.27	
4,564.00	44.05	176.52	176.79	3,035.59	4,430.29	705.26 S	543.12 E	187,186.30	2,128,478.06	9.24	773.20	
4,596.00	47.75	176.83	177.10	3,057.85	4,452.55	728.21 S	544.34 E	187,163.37	2,128,479.39	11.58	796.10	
4,627.00	51.85	177.43	177.70	3,077.86	4,472.56	751.86 S	545.41 E	187,139.72	2,128,480.57	13.31	819.67	
4,659.00	56.00	177.88	178.15	3,096.69	4,491.39	777.70 S	546.34 E	187,113.89	2,128,481.63	13.02	845.39	
4,690.00	60.63	178.03	178.30	3,112.97	4,507.67	804.06 S	547.16 E	187,087.53	2,128,482.57	14.94	871.61	
4,722.00	64.90	179.05	179.32	3,127.61	4,522.31	832.50 S	547.75 E	187,059.09	2,128,483.29	13.64	899.86	
4,753.00	68.04	180.16	180.43	3,139.99	4,534.69	860.91 S	547.80 E	187,030.68	2,128,483.48	10.65	928.02	
4,784.00	71.54	179.99	180.26	3,150.70	4,545.40	890.00 S	547.63 E	187,001.59	2,128,483.44	11.30	956.81	
4,904.00	79.76	179.68	179.95	3,180.41	4,575.11	1,006.16 S	547.42 E	186,885.43	2,128,483.78	6.85	1,071.83	
4,935.00	84.00	179.07	179.34	3,184.79	4,579.49	1,036.84 S	547.61 E	186,854.75	2,128,484.12	13.82	1,102.25	
4,966.00	85.98	178.64	178.91	3,187.50	4,582.20	1,067.71 S	548.09 E	186,823.88	2,128,484.74	6.53	1,132.90	
4,996.00	88.39	178.05	178.32	3,188.97	4,583.67	1,097.67 S	548.81 E	186,793.93	2,128,485.60	8.27	1,162.67	
5,027.00	83.27	177.34	177.61	3,191.22	4,585.92	1,128.56 S	549.91 E	186,763.05	2,128,486.84	16.67	1,193.41	Start MWD
5,057.00	83.80	176.29	176.56	3,194.60	4,589.30	1,158.33 S	551.42 E	186,733.29	2,128,488.50	3.90	1,223.11	
5,086.00	87.50	172.87	173.14	3,196.80	4,591.50	1,187.12 S	554.02 E	186,704.51	2,128,491.23	17.35	1,251.98	
5,116.00	89.48	170.54	170.81	3,197.59	4,592.29	1,216.81 S	558.21 E	186,674.84	2,128,495.56	10.19	1,281.97	
5,146.00	90.52	168.84	169.11	3,197.59	4,592.29	1,246.35 S	563.44 E	186,645.32	2,128,500.93	6.64	1,311.94	
5,237.00	91.88	169.16	169.43	3,195.69	4,590.39	1,335.73 S	580.37 E	186,556.02	2,128,518.29	1.54	1,402.81	
5,327.00	90.65	169.55	169.82	3,193.70	4,588.40	1,424.24 S	596.58 E	186,467.59	2,128,534.91	1.43	1,492.70	

Design Report for Hudgens 3307 #10-2H - Wellbore #2

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	True Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (ft)	Map Coordinates Easting (ft)	Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
5,419.00	90.74	169.38	169.65	3,192.58	4,587.28	1,514.76 S	612.97 E	186,377.15	2,128,551.73	0.21	1,584.62	
5,510.00	89.51	170.34	170.61	3,192.39	4,587.09	1,604.41 S	628.57 E	186,287.57	2,128,567.75	1.71	1,675.56	
5,600.00	88.74	172.72	172.99	3,193.76	4,588.46	1,693.47 S	641.40 E	186,198.57	2,128,581.00	2.78	1,765.54	
5,691.00	88.06	173.80	174.07	3,196.30	4,591.00	1,783.86 S	651.65 E	186,108.24	2,128,591.68	1.40	1,856.48	
5,781.00	89.26	177.16	177.43	3,198.41	4,593.11	1,873.57 S	658.32 E	186,018.56	2,128,598.77	3.96	1,946.26	
5,873.00	89.26	178.43	178.70	3,199.59	4,594.29	1,965.51 S	661.43 E	185,926.63	2,128,602.30	1.38	2,037.75	
5,967.00	90.49	180.36	180.63	3,199.80	4,594.50	2,059.50 S	661.98 E	185,832.65	2,128,603.30	2.43	2,130.92	
6,061.00	89.85	180.20	180.47	3,199.52	4,594.22	2,153.49 S	661.07 E	185,738.65	2,128,602.84	0.70	2,223.90	
6,155.00	89.11	179.95	180.22	3,200.37	4,595.07	2,247.49 S	660.51 E	185,644.65	2,128,602.71	0.83	2,316.93	
6,250.00	88.34	179.29	179.56	3,202.49	4,597.19	2,342.46 S	660.69 E	185,549.68	2,128,603.34	1.07	2,411.03	
6,344.00	88.92	179.74	180.01	3,204.74	4,599.44	2,436.43 S	661.04 E	185,455.71	2,128,604.14	0.78	2,504.16	
6,439.00	88.74	179.49	179.76	3,206.68	4,601.38	2,531.41 S	661.23 E	185,360.73	2,128,604.78	0.32	2,598.26	
6,533.00	90.09	179.63	179.90	3,207.63	4,602.33	2,625.41 S	661.51 E	185,266.74	2,128,605.50	1.44	2,691.40	
6,627.00	90.34	180.36	180.63	3,207.28	4,601.98	2,719.40 S	661.08 E	185,172.74	2,128,605.51	0.82	2,784.45	
6,722.00	90.95	181.29	181.56	3,206.21	4,600.91	2,814.38 S	659.26 E	185,077.76	2,128,604.14	1.17	2,878.27	
6,816.00	92.53	180.99	181.26	3,203.36	4,598.06	2,908.30 S	656.95 E	184,983.83	2,128,602.27	1.71	2,970.99	
6,911.00	90.65	180.70	180.97	3,200.72	4,595.42	3,003.25 S	655.10 E	184,888.88	2,128,600.87	2.00	3,064.77	
7,005.00	91.20	181.02	181.29	3,199.21	4,593.91	3,097.21 S	653.25 E	184,794.90	2,128,599.46	0.68	3,157.60	
7,099.00	90.46	179.96	180.23	3,197.84	4,592.54	3,191.19 S	652.00 E	184,700.92	2,128,598.65	1.38	3,250.51	
7,194.00	90.03	180.21	180.48	3,197.44	4,592.14	3,286.19 S	651.41 E	184,605.92	2,128,598.51	0.52	3,344.53	
7,288.00	89.44	180.39	180.66	3,197.87	4,592.57	3,380.19 S	650.48 E	184,511.92	2,128,598.02	0.66	3,437.50	
7,382.00	91.39	181.57	181.84	3,197.19	4,591.89	3,474.15 S	648.43 E	184,417.94	2,128,596.41	2.42	3,530.30	
7,477.00	90.83	181.61	181.88	3,195.35	4,590.05	3,569.09 S	645.35 E	184,323.00	2,128,593.78	0.59	3,623.91	
7,571.00	90.37	180.41	180.68	3,194.37	4,589.07	3,663.06 S	643.25 E	184,229.02	2,128,592.12	1.37	3,716.70	
7,666.00	92.34	180.56	180.83	3,192.12	4,586.82	3,758.02 S	641.99 E	184,134.06	2,128,591.31	2.08	3,810.58	
7,761.00	92.31	180.88	181.15	3,188.27	4,582.97	3,852.92 S	640.35 E	184,039.14	2,128,590.12	0.34	3,904.37	
7,855.00	91.29	180.35	180.62	3,185.31	4,580.01	3,946.86 S	638.90 E	183,945.20	2,128,589.11	1.22	3,997.22	
7,950.00	91.45	179.96	180.23	3,183.04	4,577.74	4,041.83 S	638.20 E	183,850.22	2,128,588.86	0.44	4,091.19	
8,044.00	89.44	180.01	180.28	3,182.31	4,577.01	4,135.83 S	637.78 E	183,756.23	2,128,588.88	2.14	4,184.23	
8,138.00	90.12	180.61	180.88	3,182.67	4,577.37	4,229.82 S	636.83 E	183,662.24	2,128,588.37	0.96	4,277.20	
8,233.00	89.60	179.89	180.16	3,182.91	4,577.61	4,324.81 S	635.97 E	183,567.24	2,128,587.96	0.93	4,371.18	
8,327.00	88.74	179.96	180.23	3,184.27	4,578.97	4,418.80 S	635.65 E	183,473.25	2,128,588.08	0.92	4,464.23	
8,422.00	88.71	180.36	180.63	3,186.38	4,581.08	4,513.78 S	634.93 E	183,378.27	2,128,587.81	0.42	4,558.21	
8,516.00	88.77	180.53	180.80	3,188.45	4,583.15	4,607.75 S	633.76 E	183,284.30	2,128,587.08	0.19	4,651.12	
8,610.00	89.75	180.66	180.93	3,189.66	4,584.36	4,701.73 S	632.34 E	183,190.31	2,128,586.11	1.05	4,744.02	
8,705.00	90.09	181.37	181.64	3,189.79	4,584.49	4,796.70 S	630.21 E	183,095.33	2,128,584.42	0.83	4,837.80	
8,799.00	90.46	180.86	181.13	3,189.34	4,584.04	4,890.67 S	627.94 E	183,001.35	2,128,582.60	0.67	4,930.57	

Design Report for Hudgens 3307 #10-2H - Wellbore #2

Measured Depth (ft)	Inclination (°)	Grid Azimuth (°)	True Azimuth (°)	TVD below System (ft)	Vertical Depth (ft)	Local Coordinates Northing (ft)	Local Coordinates Easting (ft)	Map Coordinates Northing (ft)	Map Coordinates Easting (ft)	Dogleg Rate (°/100ft)	Vertical Section (ft)	Comments
8,894.00	88.64	181.08	181.35	3,190.09	4,584.79	4,985.64 S	625.88 E	182,906.37	2,128,580.99	1.93	5,024.35	
8,988.00	88.18	181.13	181.40	3,192.70	4,587.40	5,079.58 S	623.63 E	182,812.42	2,128,579.17	0.49	5,117.09	
9,082.00	89.75	180.68	180.95	3,194.40	4,589.10	5,173.54 S	621.70 E	182,718.45	2,128,577.69	1.74	5,209.90	
9,125.00	89.91	180.66	180.93	3,194.52	4,589.22	5,216.54 S	621.00 E	182,675.46	2,128,577.19	0.37	5,252.39	End MWD
9,170.68	89.91	180.66	180.93	3,194.59	4,589.29	5,262.21 S	620.26 E	182,629.78	2,128,576.66	0.00	5,297.52	Hudgens 3307 #10-2H PBHL
9,172.00	89.91	180.66	180.93	3,194.60	4,589.30	5,263.53 S	620.23 E	182,628.46	2,128,576.65	0.00	5,298.83	Projection to ST1 TD 9172.00 MD, 4589.30 TVD -5263.53 N, 620.23 E 329 FSL, 467 FEL

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,027.00	4,585.92	-1,128.56	549.91	Start MWD
9,125.00	4,589.22	-5,216.54	621.00	End MWD
9,172.00	4,589.30	-5,263.53	620.23	Projection to ST1 TD 9172.00 MD, 4589.30 TVD -5263.53 N, 620.23 E 329 FSL, 467 FEL

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (ft)	Origin +E/-W (ft)	Start TVD (ft)
User	No Target (Freehand)	172.10	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
187.00	4,996.00	Sperry MWD Surveys	MWD+SC
5,027.00	9,172.00	Survey - Final	MWD+SC

Design Report for Hudgens 3307 #10-2H - Wellbore #2

Design Targets

Target Name - hit/miss target - Shape	Dip Angle ()	Dip Dir. ()	TVD ()	+N/-S ()	+E/-W ()	Northing ()	Easting ()	Latitude	Longitude

Directional Difficulty Index

Average Dogleg over Survey:	2.21 °/100ft	Maximum Dogleg over Survey:	17.35 °/100ft at 5,086.00 ft
Net Tortousity applicable to Plans:	0.40 °/100ft	Directional Difficulty Index:	6.348

Audit Info

HALLIBURTON

North Reference Sheet for Sec 10-T33S-R07W - Hudgens 3307 #10-2H - Wellbore #2

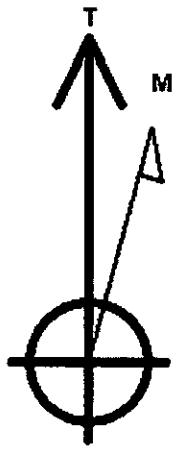
All data is in Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.
Vertical Depths are relative to WELL @ 1394.70ft (Nabors 102 (31.7')). Northing and Easting are relative to Hudgens 3307 #10-2H

Coordinate System is US State Plane 1927 (Exact solution), Kansas South 1502 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866
Projection method is Lambert Conformal Conic (2 parallel)
Central Meridian is 98° 30' 0.000 W°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:37° 16' 0.000 N°
False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 1.00001775

Grid Coordinates of Well: 187,889.00 ft N, 2,127,931.63 ft E
Geographical Coordinates of Well: 37° 10' 54.66" N, 098° 03' 39.22" W
Grid Convergence at Surface is: 0.27°

Based upon Minimum Curvature type calculations, at a Measured Depth of 9,172.00ft
the Bottom Hole Displacement is 5,299.95ft in the Direction of 173.28° (True).

Magnetic Convergence at surface is: -4.36° (31 October 2012, , BGGM2012)



Magnetic Model:	BGGM 2012
Date:	31-Oct-12
Declination:	4.63°
Inclination/Dip:	65.32°
Field Strength:	51839

Grid North is 0.27° East of True North (Grid Convergence)
agnetic North is 4.63° East of True North (Magnetic Declination)
gnetic North is 4.36° East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.27°
convert a Magnetic Direction to a True Direction, Add 4.63° East
To convert a Magnetic Direction to a Grid Direction, Add 4.36°

T33S, R7W, 6th P.M.

SGOMI

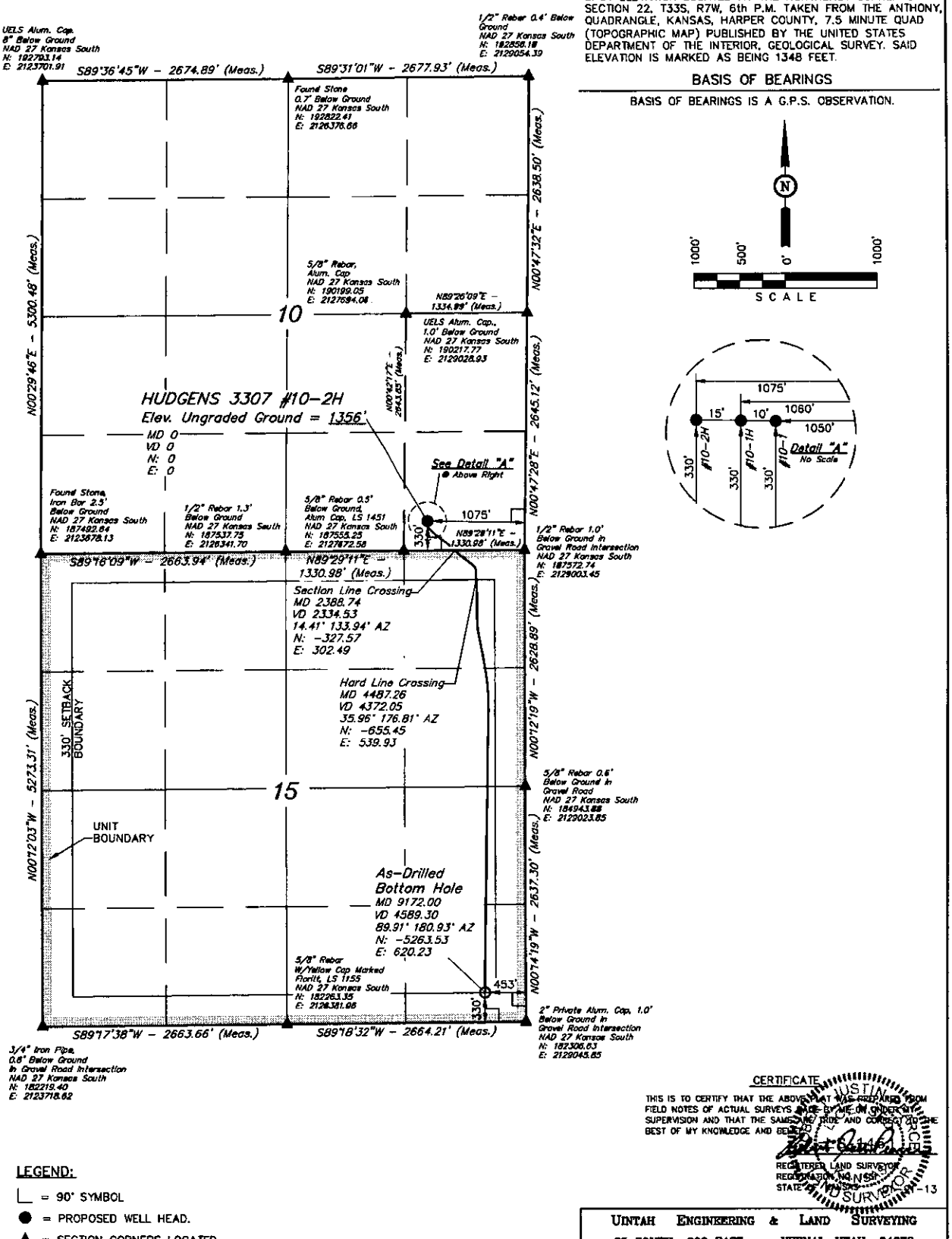
Well location, HUDGENS 3307 #10-2H, located as shown in the SE 1/4 SE 1/4 of Section 10, T33S, R7W, 6th P.M., Harper County, Kansas.

BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE NORTHEAST CORNER OF SECTION 22, T33S, R7W, 6th P.M. TAKEN FROM THE ANTHONY, QUADRANGLE, KANSAS, HARPER COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 1348 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Date: 1-14-13

Robert Critchfield

REGISTERED LAND SURVEYOR
REGISTRATION NO. 5151
STATE OF KANSAS

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (#10-2H AS-DRILLED BOTTOM HOLE)	NAD 83 (#10-2H SURFACE LOCATION)
LATITUDE = 37°10'02.71" (37.167419)	LATITUDE = 37°10'54.74" (37.181872)
LONGITUDE = 98°03'32.62" (98.059061)	LONGITUDE = 98°03'40.45" (98.061236)
NAD 27 (#10-2H AS-DRILLED BOTTOM HOLE)	NAD 27 (#10-2H SURFACE LOCATION)
LATITUDE = 37°10'02.63" (37.167397)	LATITUDE = 37°10'54.66" (37.181850)
LONGITUDE = 98°03'31.39" (98.058719)	LONGITUDE = 98°03'39.22" (98.060894)
STATE PLANE NAD 27 (KANSAS SOUTH)	STATE PLANE NAD 27 (KANSAS SOUTH)
N: 182620.05 E: 2126890.43	N: 187580.00 E: 2127031.63

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE	1" = 1000'	DATE SURVEYED:	12-08-12
		DATE DRAWN:	01-15-13
PARTY	C.A.G.	REFERENCES	G.L.O. PLAT
WEATHER	WARM	FILE	SGOMI