



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT
WELL LOCATION PLAT

PAGE 1 Surface location

DEP USE ONLY	Auth ID #:	PC1
	Permit #:	09-22145
	Project #:	0813

Denotes location of well on topo map

True Latitude: NORTH (NAD83)

40° 44' 24.59"

True Longitude: WEST (NAD83)

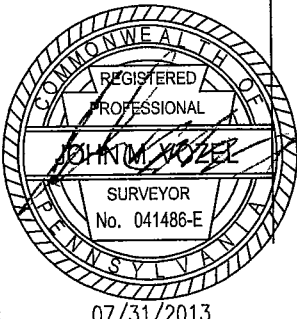
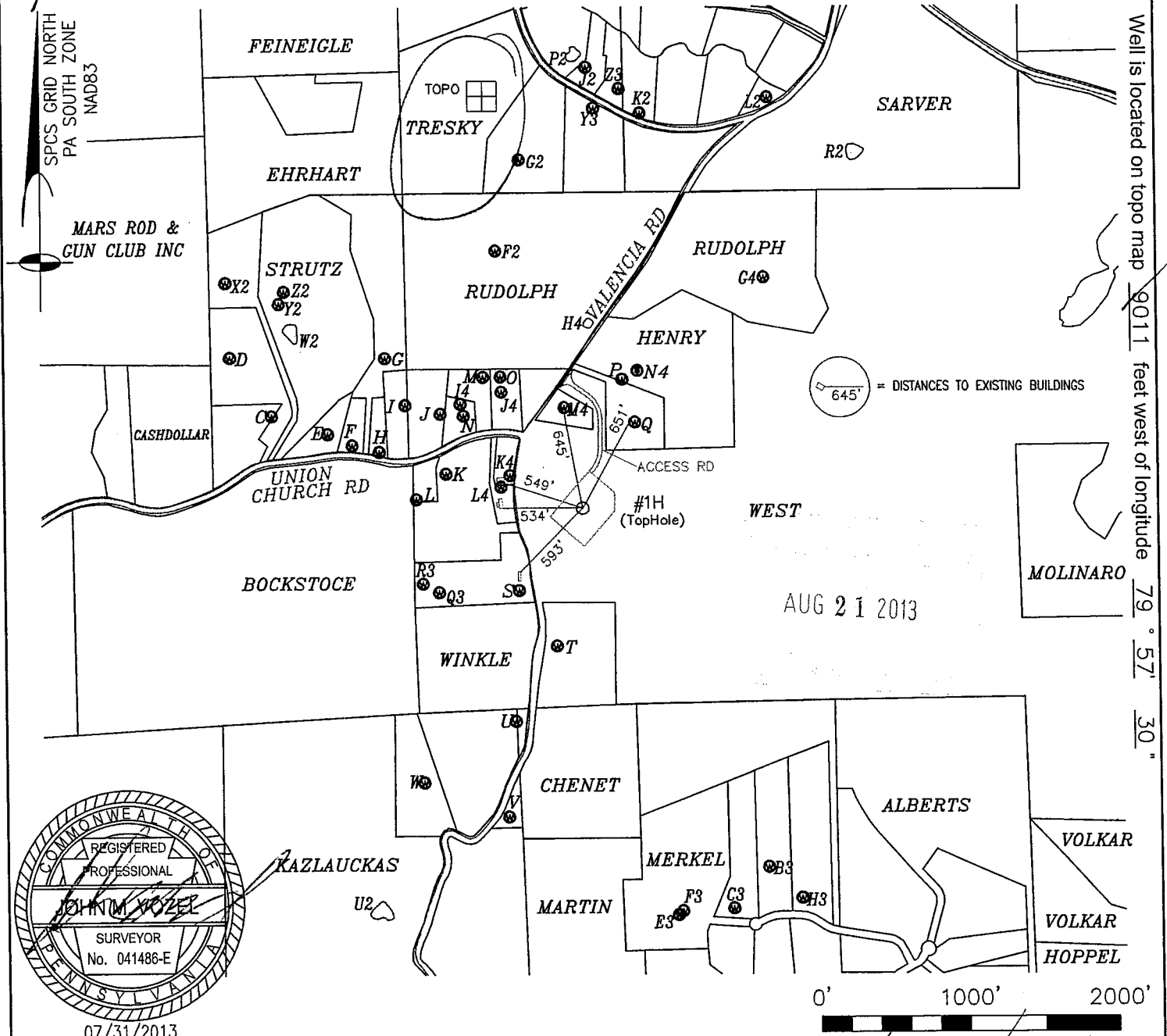
79° 59' 27.08"

Well is located on topo map 3583 feet south of latitude 40° 45' 00"

NOTE:

THIS PLAT IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND LINES PERTINENT TO LOCATING THE PROPOSED WELL ARE FROM FIELD SURVEY. OTHER LINES AND FEATURES SHOWN ARE FROM TAX MAPS AND/OR DEEDS. THE INFORMATION PRESENTED SHOULD NOT BE UTILIZED FOR ANY OTHER PURPOSES. THIS PROPERTY IS SUBJECT TO ANY EASEMENTS, RIGHT-OF-WAY AND/OR ENCUMBRANCES BOTH APPARENT AND OF RECORD. NO TITLE SEARCH HAS BEEN MADE IN PREPARATION OF THIS WELL PLAT.

LEGEND	
	SURFACE BOUNDARY
	PROPOSED GAS WELL TOPHOLE
	EXISTING GAS WELL
	SURFACE LANDOWNER - WELL SUPPLY
	SURFACE LANDOWNER - SPRING SUPPLY



07/31/2013

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm) Name: WEST UNIT		Well #: 1H	Serial #:
Address: 366 WALKER DRIVE STATE COLLEGE, PA 16801		County: BUTLER - 10	Municipality: ADAMS TOWNSHIP	Well Type: GAS		
911 Address of Well Site:		USGS 7 1/2' Quadrangle Map Name: VALENCIA	Map Section: 1	Surface Elevation: 1175		
Surveyor or Engineer: JOHN M. VOZEL TRI-COUNTY ENGINEERING, LLC	Phone #: (724)635-0210	Dwg. #: REXOG51-24-1H	Date: 07/27/2013	Scale: 1" = 1000'	Tract Acreage: 633.8435	
Lat. & Long Metadata Method: Direct GPS	Accuracy: SUB-METER	ft. Datum: NAD 83	Elevation Metadata Method: USGS TOPO	Accuracy: 5'	ft. Datum: NGVD 29	Survey Date: 7/12/13

WELL LOCATION PLAT

PAGE 2 Notifications

019-22145

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC	DEP ID #: 290866	Well (Farm) Name: WEST UNIT	Well #: 1H	Serial #:
Surface Landowner / Lessor: JAMES A WEST JR & STEPHEN S WEST TRUSTEES OF THE WEST FAMILY FARM TRUST		Angle & Course of Deviation (Drilling): DEVIATED—SEE ATTACHED	Anticipated True Vertical Depth Feet (TVD): 5855	Anticipated Total Measured Depth Feet (TMD): 11277
Target Formation (s): MARCELLUS		Deepest Formation to be Penetrated: MARCELLUS	Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 11277
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude / Longitude of Water Supply		
C) RANDALL R & MARY L SZYMIK		N40°44'30.18" W79°59'54.31"		
D) JEFFERY L & SHIRLEY A LAWTHOR		N40°44'33.96" W79°59'58.03"		
E) RAYMOND E & DEBORAH J KUBA		N40°44'29.07" W79°59'49.42"		
F) JOSEPH P FORSYTHE & NIKKI CARR		N40°44'28.37" W79°59'47.26"		
G) JOSEPH W & SHARON L KOVAC		N40°44'34.15" W79°59'44.55"		
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L) SHIRLEY M LOWER		N40°44'24.91" W79°59'41.62"		
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Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
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FORWARD TOWNSHIP — BUTLER COUNTY		PINE TOWNSHIP — ALLEGHENY COUNTY		
PENN TOWNSHIP — BUTLER COUNTY				
MIDDLESEX TOWNSHIP — BUTLER COUNTY		Coal related parties		
CRANBERRY TOWNSHIP — BUTLER COUNTY				
CALLERY BOROUGH — BUTLER COUNTY				
MARS BOROUGH — BUTLER COUNTY				
VALENCIA BOROUGH — BUTLER COUNTY				
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C3) DONALD T & REGINA C ELLENBERGER			N40°43'58.53" W79°59'13.51"		
E3) JAMES & JACQUE L MERKEL			N40°43'58.02" W79°59'18.35"		
F3) JAMES & JACQUE L MERKEL			N40°43'58.28" W79°59'17.97"		
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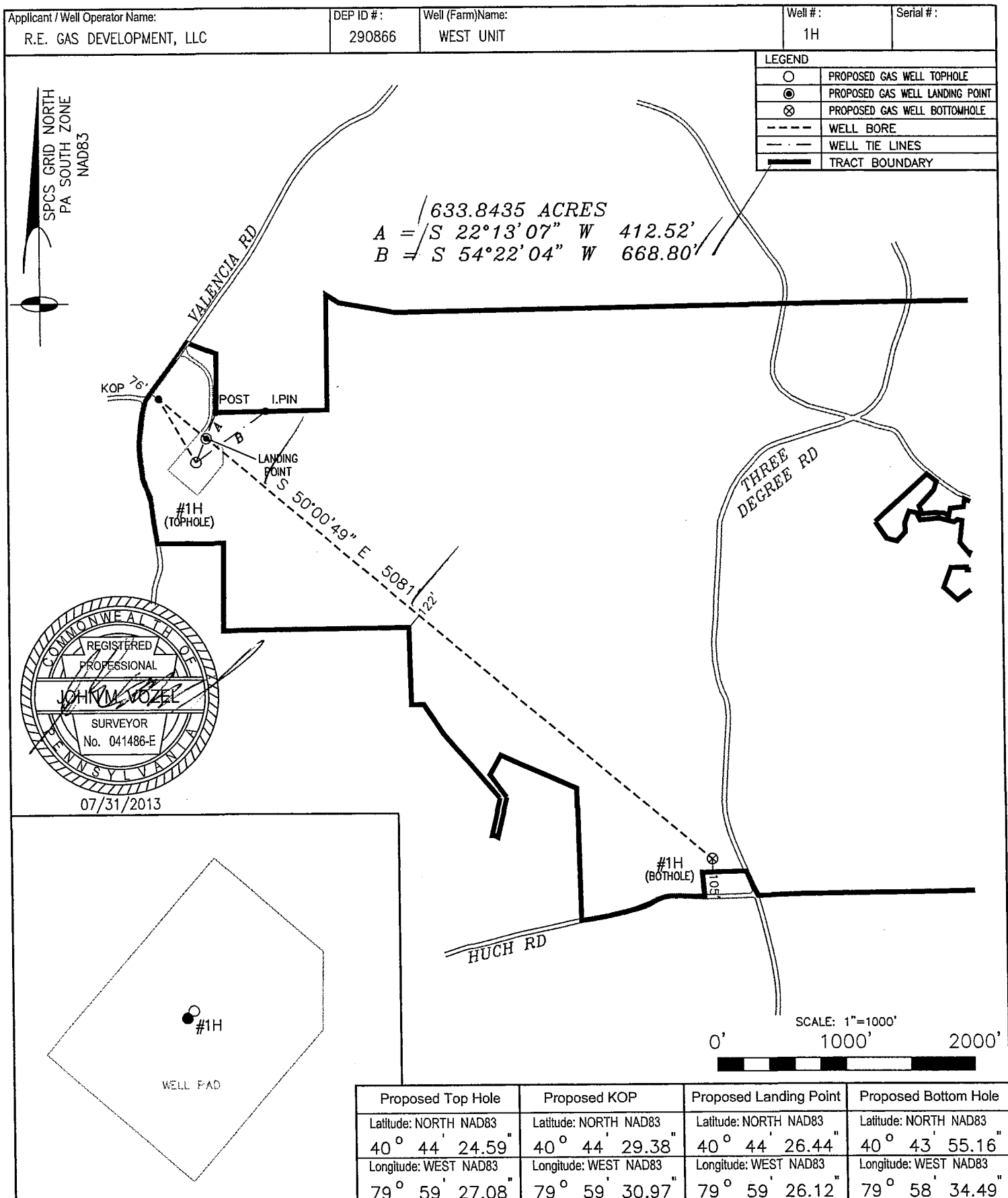
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K4) J CLIFTON STRUTZ		N40°44'26.62" W79°59'33.46"		
L4) JOHN C STRUTZ		N40°44'25.86" W79°59'34.23"		
M4) MARY K & GREGORY A HERZOG		N40°44'31.71" W79°59'28.82"		
N4) PATRICIA S HENERY		N40°44'33.70" W79°59'22.60"		
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		Coal related parties		

WELL LOCATION PLAT

PAGE 3 Plan View Of Deviated Well Bore

019-22145

If well has a lateral other than vertical show the bottom hole location on the plat drawing as $\otimes$ and include the Coordinates in the provided section at the bottom of the drawing area. The top hole and bottom hole locations are to be connected by a bolded line this is to depict the proposed courses of the actual wellbore to be drilled.



WELL LOCATION PLAT
PAGE 4 Cross Section

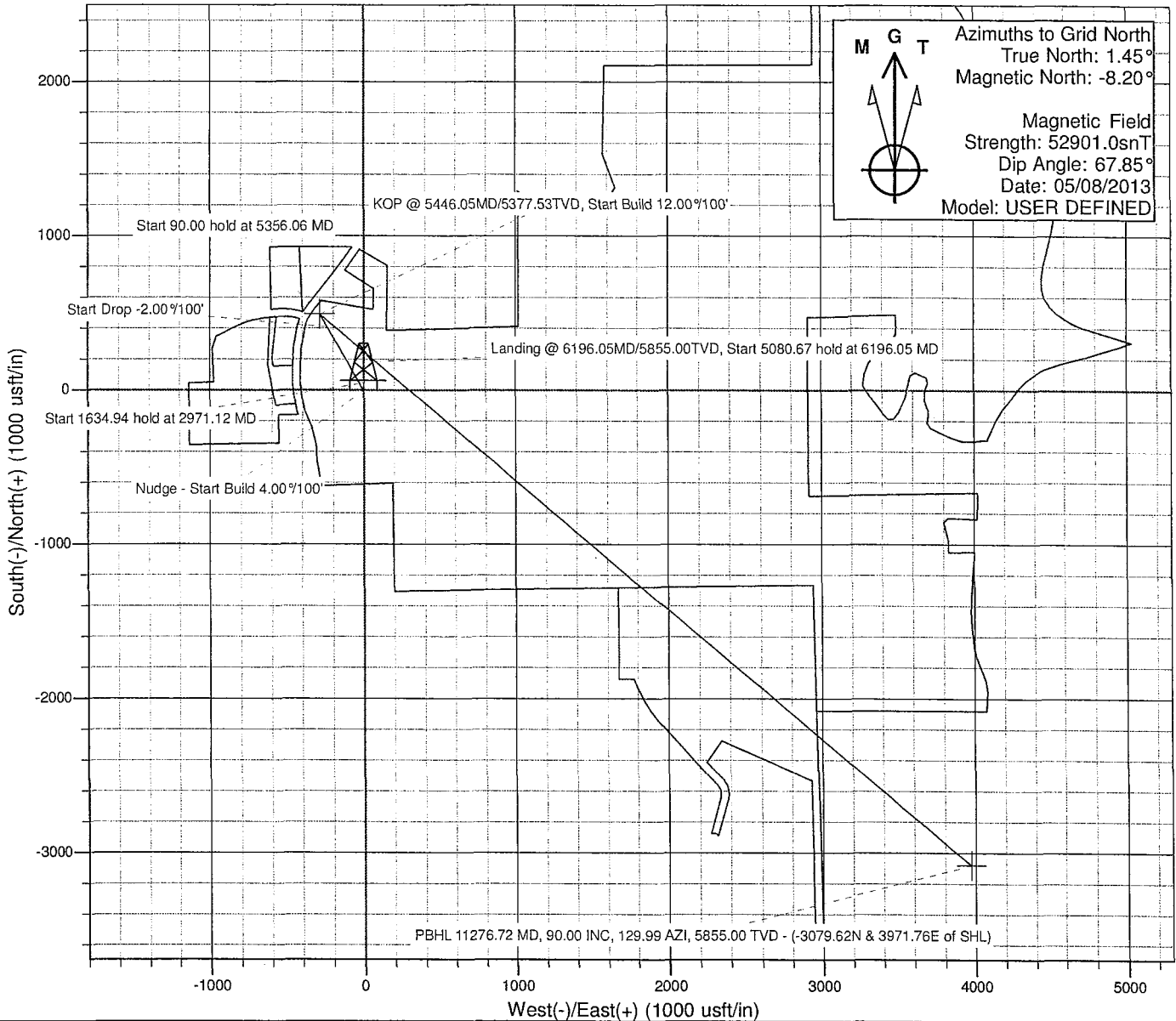
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SEE ATTACHMENT



Project: Butler County, PA
 Site: West
 Well: West 1H
 Wellbore: Orig Hole
 Design: Plan #7

West 1H					
+N/-S	+E/-W	Northing	Ground Level: Easting	1167.50 Latitude	Longitude
0.00	0.00	520375.1108	1347609.8334	40° 44' 24.589 N	79° 59' 27.081 W



ANNOTATIONS									
TVD	TMD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
2596.12	2596.12	0.00	0.00	0.00	0.00	0.00	0.00	Nudge - Start Build 4.00°/100'	
2966.85	2971.12	15.00	329.76	42.17	-24.58	-45.26	48.81	Start 1634.94 hold at 2971.12 MD	
4546.08	4606.06	15.00	329.76	407.74	-237.69	-437.69	471.96	Start Drop -2.00°/100'	
5287.54	5356.06	0.00	0.00	492.07	-286.86	-528.21	569.58	Start 90.00 hold at 5356.06 MD	
5377.54	5446.05	0.00	0.00	492.07	-286.86	-528.21	569.58	KOP @ 5446.05MD/5377.53TVD, Start Build 12.00°/100'	
5855.00	6196.05	90.00	129.99	185.25	78.98	-51.10	1047.04	Landing @ 6196.05MD/5855.00TVD, Start 5080.67 hold at 6196.05 MD	
5855.00	11276.72	90.00	129.99	-3079.62	3971.76	5025.83	6127.71	PBHL 11276.72 MD, 90.00 INC, 129.99 AZI, 5855.00 TVD - (-3079.62N & 3971.76E of SHL)	

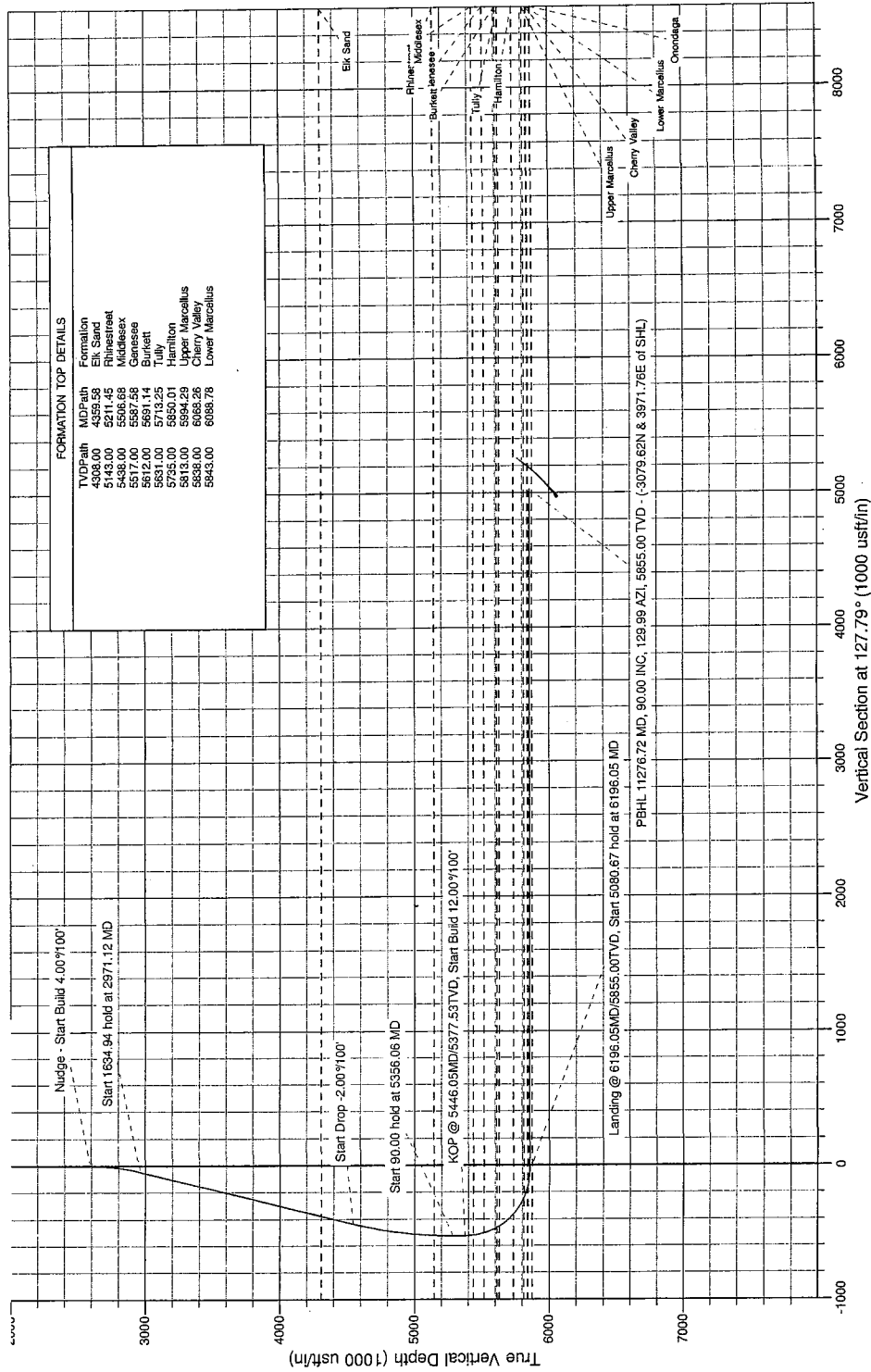
Plan: Plan #7 (West 1H Orig Hole)
 Created By: David L. Myers Jr. Date: 11/30, July 25 2013

DDC, LLC
 646 Hall Road, Buckhannon, WV 26201
 Phone: (304) 473-1825 Fax: (304) 473-1826

DDC
 Directional Drilling Contractors, LLC
 An Archer Company



Project: Butler County, PA
 Site: West
 Well: West 1H
 Wellbore: Orig Hole
 Design: Plan #7





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DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT
WELL LOCATION PLAT

PAGE 1 Surface location

DEP USE ONLY	Auth ID #:	ACM
	Permit #:	09-2246813
	Project #:	

Denotes location of well on topo map

True Latitude: NORTH (NAD83)

40° 44' 24.70"

True Longitude: WEST (NAD83)

79° 59' 26.96"

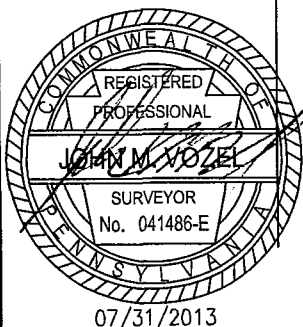
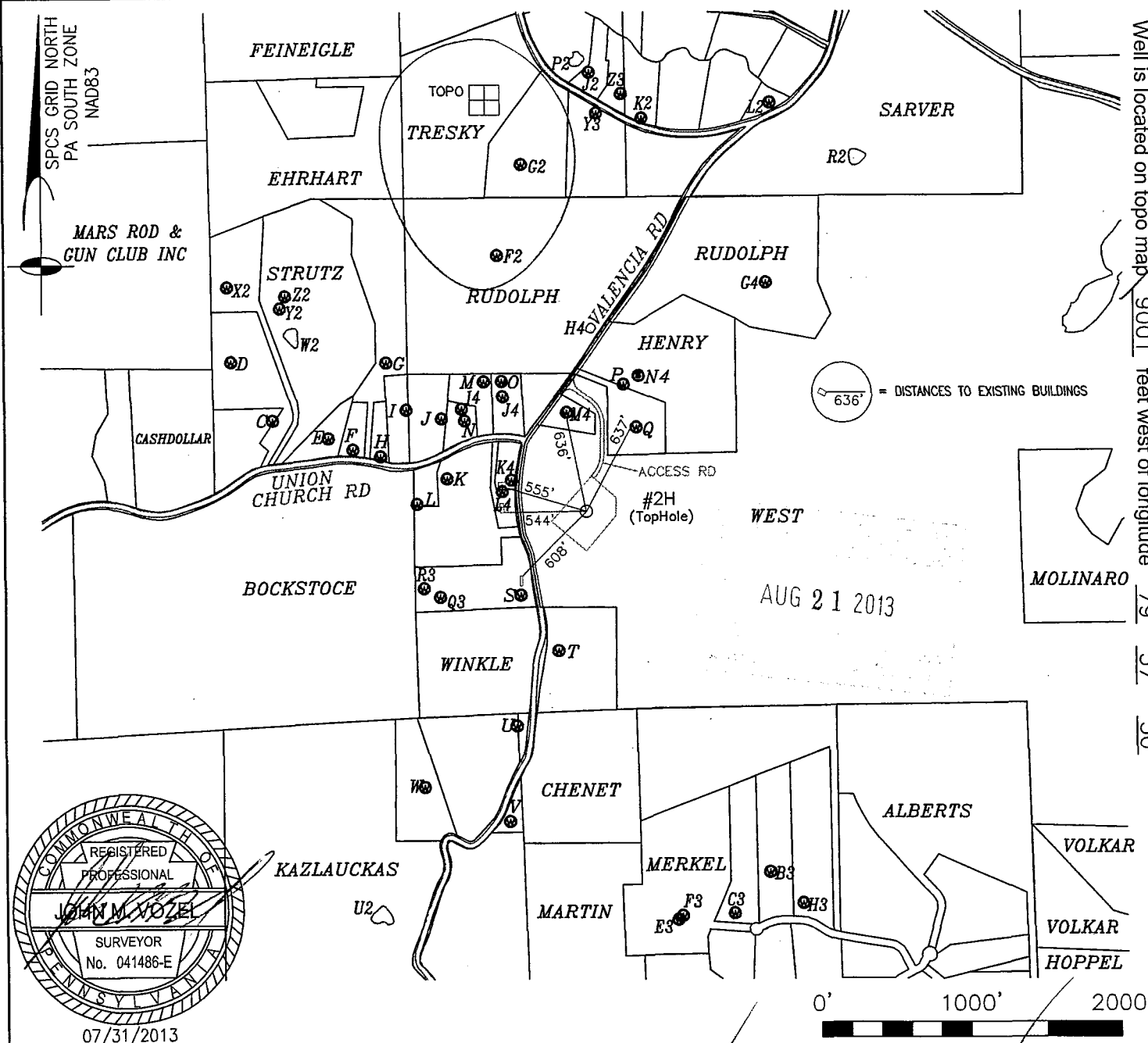
Well is located on topo map 7572 feet south of latitude 40° 45' 00"

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07/31/2013

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Surveyor or Engineer: JOHN M. VOZEL TRI-COUNTY ENGINEERING, LLC	Phone #: (724)635-0210	Dwg. #: REXOG51-24-2H	Date: 07/29/2013	Scale: 1" = 1000'	Tract Acreage: 633.8435	
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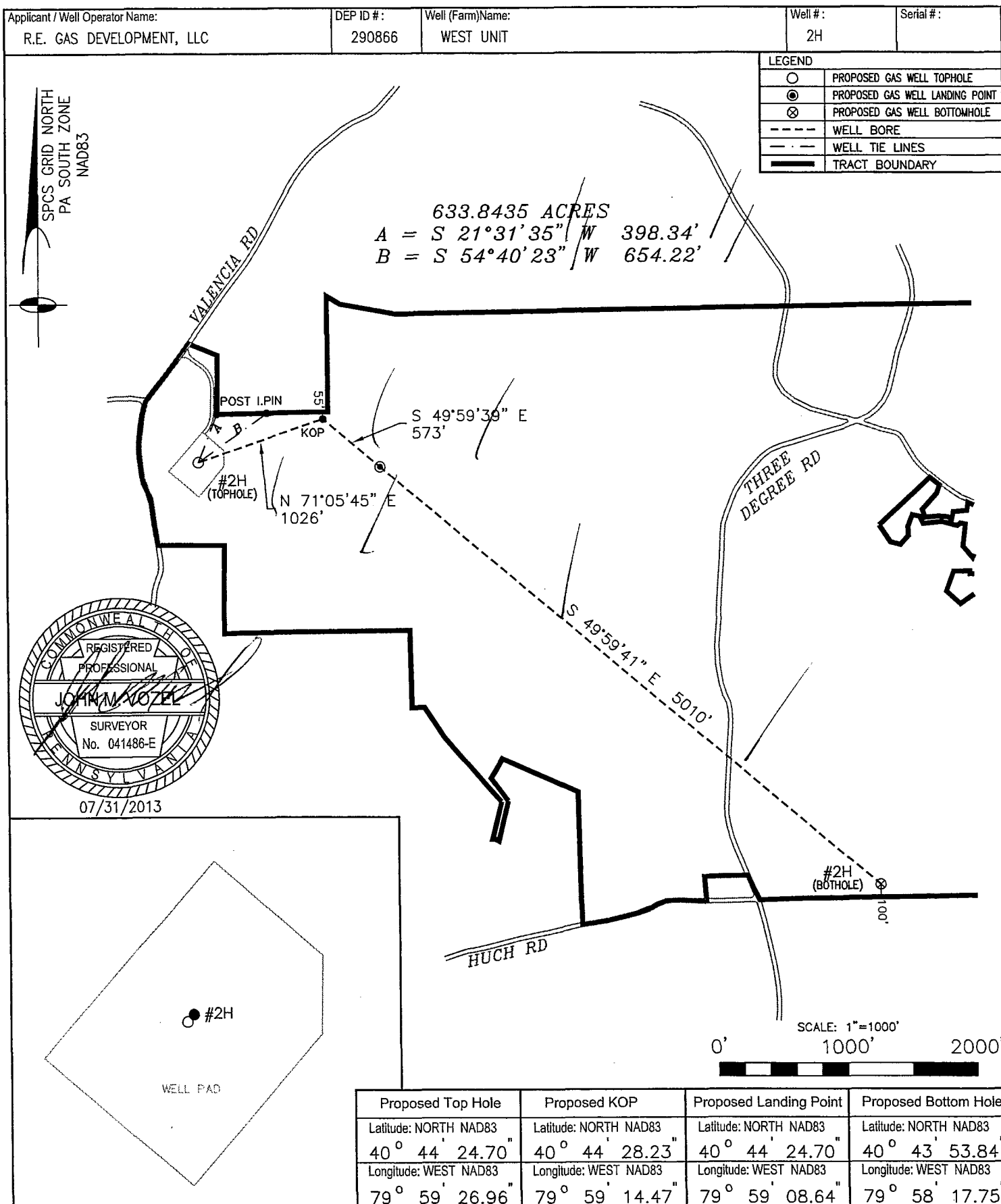
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PAGE 3 Plan View Of Deviated Well Bore

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PAGE 4 Cross Section

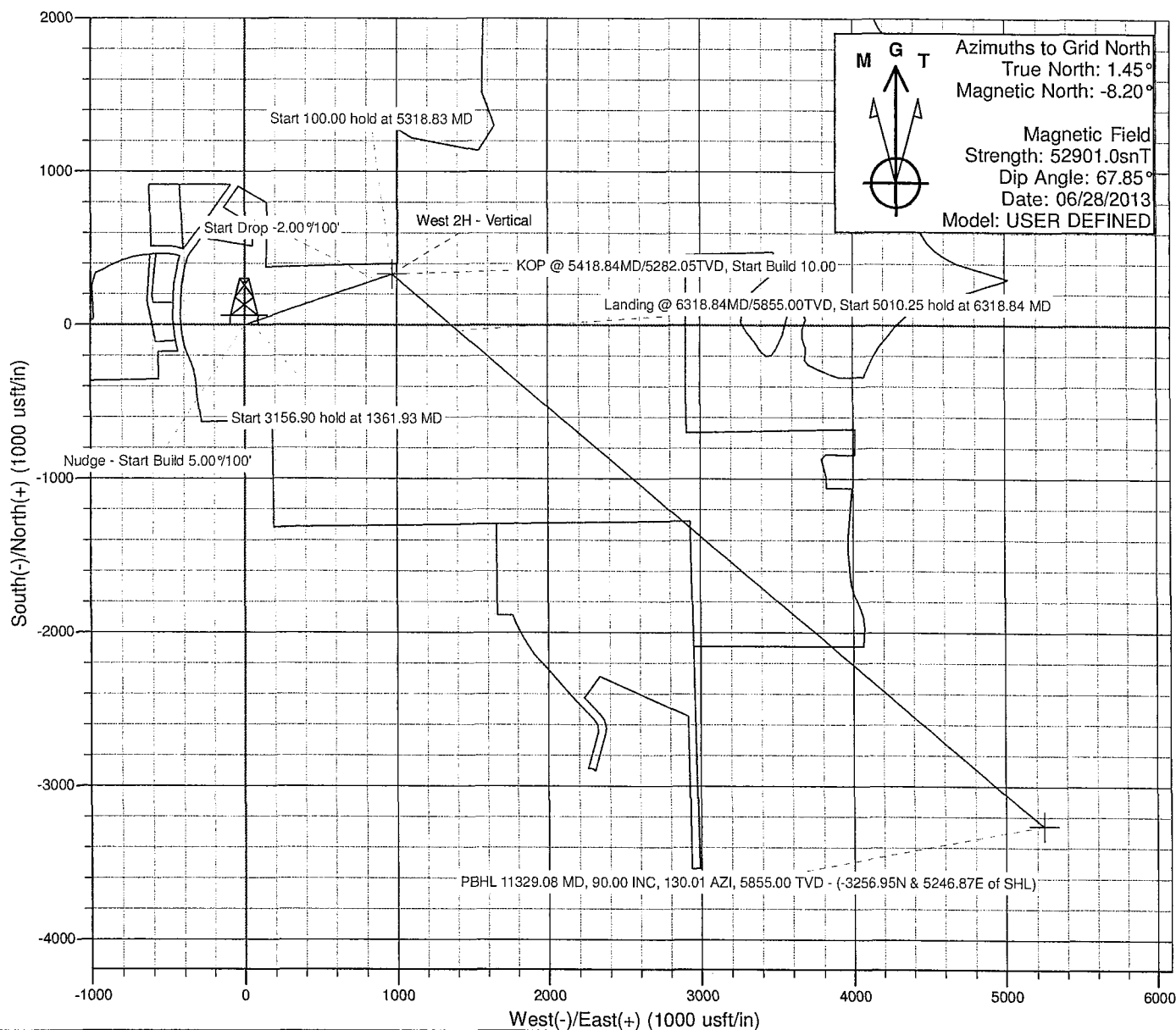
Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC	DEP ID # : 290866	Well (Farm)Name: WEST UNIT	Well # : 2H
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SEE ATTACHMENT



Project: Butler County, PA
 Site: West
 Well: West 2H
 Wellbore: Orig Hole
 Design: Plan #11

West 2H					
+N/-S	+E/-W	Northing	Ground Level: Easting	1167.50 Latitude	Longitude
0.00	0.00	520386.4434	1347619.6605	40° 44' 24.703 N	79° 59' 26.957 W



ANNOTATIONS									
TVD	TMD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
1041.93	1041.93	0.00	0.00	0.00	0.00	0.00	0.00	Nudge - Start Build 5.00°/100'	
1357.79	1361.93	16.00	71.10	14.38	42.00	28.10	44.39	Start 3156.90 hold at 1361.93 MD	
4392.40	4518.83	16.00	71.10	296.30	865.22	578.85	914.55	Start Drop -2.00°/100'	
5182.04	5318.83	0.00	0.00	332.25	970.21	649.09	1025.53	Start 100.00 hold at 5318.83 MD	
5282.04	5418.84	0.00	0.00	332.25	970.21	649.09	1025.53	KOP @ 5418.84MD/5282.05TVD, Start Build 10.00	
5855.00	6318.84	90.00	130.01	-36.08	1409.09	1216.22	1598.49	Landing @ 6318.84MD/5855.00TVD, Start 5010.25 hold at 6318.84 MD	
5855.00	11329.08	90.00	130.01	-3256.95	5246.87	6175.55	6608.73	PBHL 11329.08 MD, 90.00 INC, 130.01 AZI, 5855.00 TVD - (-3256.95N & 5246.87E of SHL)	

DDC, LLC
 646 Hall Road, Buckhannon, WV 26201
 Phone: (304) 473-1825 Fax: (304) 473-1826

Plan: Plan #11 (West 2H/Orig Hole)
 Created By: David L. Myers Jr. Date: 8/16, July 29 2013

DDC
 Directional Drilling Contractors, LLC.
 An Archer Company



Project: Butler County, PA
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