



Commonwealth of Virginia  
 Department of Mines, Minerals, and Energy  
 Division of Gas and Oil  
 P.O. Box 1416; Abingdon, VA 24212  
 Telephone: (276) 676-5423

Tracking Number: 522  
 Company: Daugherty Petroleum, Inc.  
 File Number: LE-0211  
 Operations Name: 1790  
 Operation Type: Gas  
 Drilling Report Type: Original

### DRILLING REPORT (DGO-GO-14)

#### 1. Drilling Data

Date drilling commenced: 3/23/2007 Drilling Contractor: PHOENIX  
 Date drilling completed: 5/6/2007 Rig Type:  Rotary  Cable Tool  
 Driller's Total Depth (feet): 5,579  
 Log Total Depth (feet): 0 Formation At Total Depth Silurian

#### 2. Final Location Plat (as required by 4 VAC25-150-360.C.)

Permitted State Plane X 677,244 Final Plat State Plane X: 677,244  
 Permitted State Plane Y: 203,266 Final Plat State Plane Y: 203,266

Plat Previously Submitted Or...

List of Attached Items:

Description	FileName
1790 PLAT	1790PLAT.pdf

#### 3. Geological Data

Fresh Water At:

Depth (in feet)	Rate	Unit of Measure

Salt Water At:

Depth (in feet)	Rate	Unit of Measure
2,559	DAMP	

**Coal Seams**

List of Attached Items:

Description	FileName
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**Gas and Oil Shows**

List of Attached Items:

Description	FileName
1790 SHOWS	1790SHOWS.pdf

**4. Electric Logs** (As required by 4VAC25-150-280.A.)

List all logs run: GR, DENSITY, EUTRON, TEMP, AUDIO, PE

Did logs disclose vertical locations of a coal seam?  Yes  No

**5. Survey Results** (As required by 4VAC25-150-280.B.2)

List of Attached Items:

Description	FileName
1790 SURVEY	1790SURVEY.pdf

**6. Casing and Tubing Program**

List of Attached Items:

Description	FileName
1790 CASING	1790CASING.pdf

**7. Remarks**

Use this space to note any conditions or occurrences, such as lost circulation, fishing jobs, junk left in hole, sidetracks, squeeze jobs, etc., not shown above. Include data and depth of condition/occurrence.

**8. Drillers Log**

Compiled By: SHANNON WILLIAMS

List of Attached Items:

Description	FileName
1790 DRILLER'S LOG	1790DRILL.pdf

**9. Comments**

**10. Signature**

Permitee: Daugherty Petroleum, Inc. Date: 7/17/2007 (Company)

Signed By: SHARON WILLIAMS Title: GEOLOGIST (Signature)

**INTERNAL USE ONLY**

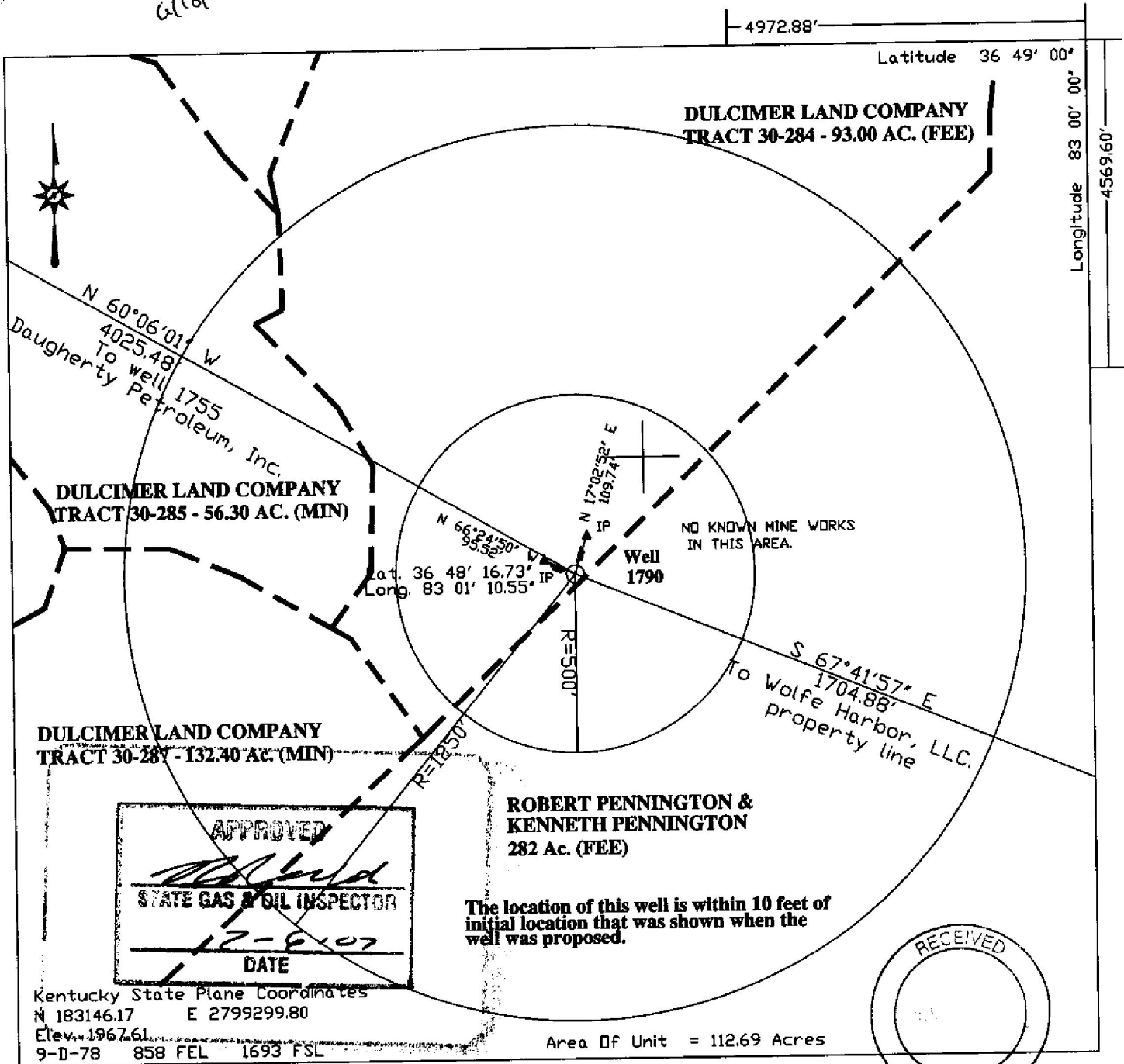
Submit Date: 7/17/2007

Status: Inspr Approved

Date: 7/20/2007

Final PDF Date: 7/20/2007

MDR  
6/18/07



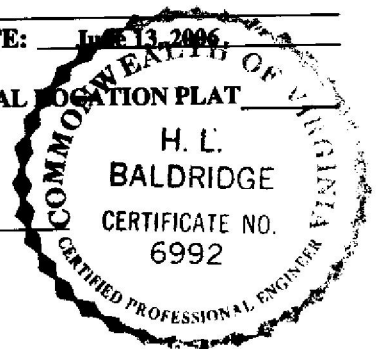
WELL LOCATION PLAT

COMPANY: DAUGHERTY PETROLEUM, INC. WELL NAME OR NUMBER 1790  
 TRACT DULCIMER LAND COMPANY - TRACT 30-284 QUADRANGLE Pennington Gap  
 DISTRICT Rocky Station  
 WELL COORDINATES ( VIRGINIA STATE PLANE): N 203266.32 E 677244.209  
 ELEVATION 1967.61 METHOD USED TO DETERMINE ELEVATION:  
GPS survey from control point for well 1755.  
 COUNTY Lee SCALE: 1" = 400' DATE: June 13, 2006

THIS PLAT IS A NEW PLAT X ; AN UPDATED PLAT \_\_\_\_\_ ; OR A FINAL LOCATION PLAT \_\_\_\_\_

Denotes the location of a well on United States topographic Maps, scale 1 to 24,000 latitude and longitude lines being represented by border lines as shown. (optional)

*[Signature]*  
Licensed Professional Engineer or Licensed Land Surveyor(Affix Seal)



Gas and Oil Shows

FORMATION	TOP	BOTTOM	THICKNESS	IPF (MCFD/BOPD)	PRESSURE	HOURS TESTED
Weir	4303'	4638'	335'	Odor		
Brown Shale	4786'	5270'	484'	Odor		

Form DGO-GO-14  
Rev. 1/98

SURVEY RESULTS

Depth Of Survey	Direction/Distance/ Degrees From True Vertical	Depth Of Survey	Direction/Distance Degrees From True Vertical
519'	1/4 deg		
719'	1/4 deg		
919'	1/4 deg		
1119'	1/2 deg		
1329'	1/2 deg		
1539'	1/2 deg		
1740'	3/4 deg		
1937'	3/4 deg		
2190'	1/2 deg		
2399'	1/2 deg		
2599'	1/2 deg		
2829'	1 deg		
3069'	1 deg		
3281'	1 deg		

Use additional sheets as necessary




**DRILLER'S LOG**

Compiled by: Shannon Williams

Geologic Age	Formation	General Lithology	Color	Depth		Thickness	Remarks
				Top	Bottom		
Pennsylvanian	Norton	Sand/SH/Coal	D. Gray	0'	1146'	1146'	
	Lee Sands	Sand/SH/Coal	Gray/Blk	1146'	2725'	1579'	
Mississippian	Upper Pennington	Shale	Gray	2725'	3310'	585'	
	Ravencloff	Sand/Shale	Br/Gray	3310'	3372'	62'	
	Maxon	Sand/Shale	Wh/Gray	3372'	3630'	258'	
	Lower Pennington	Shale	Gray	3630'	3830'	200'	
	Little Lime	Lime	Gray	3830'	3894'	64'	
	Pencil Cave	Shale	Grn/Gray	3894'	3906'	12'	
	Big Lime	Lime	Wh/Gray	3906'	4304'	398'	
	Weir	Sand/Siltstone	Dk Gray	4304'	4637'	333'	
	Sunbury	Shale	Black	4637'	4730'	93'	
	Berea	Siltstone/Sh	Dk Gray	4730'	4786'	56'	
Silurian	Brown Shale	Shale	Black	4786'	5270'	484'	
	Corniferous	Lime/Dlmitc.	Tan/Gray	5270'	5456'	186'	
	Clinton	Shale	Red/Grn.	5456'	5579'	123'	LTD: 5579'

Permittee: Daugherty Petroleum, Inc. (Company)

By: Shannon Williams, Geologist  (Signature)