

H6A Permitting Update



Gene Smith

Assistant Chief of OOG, Permitting

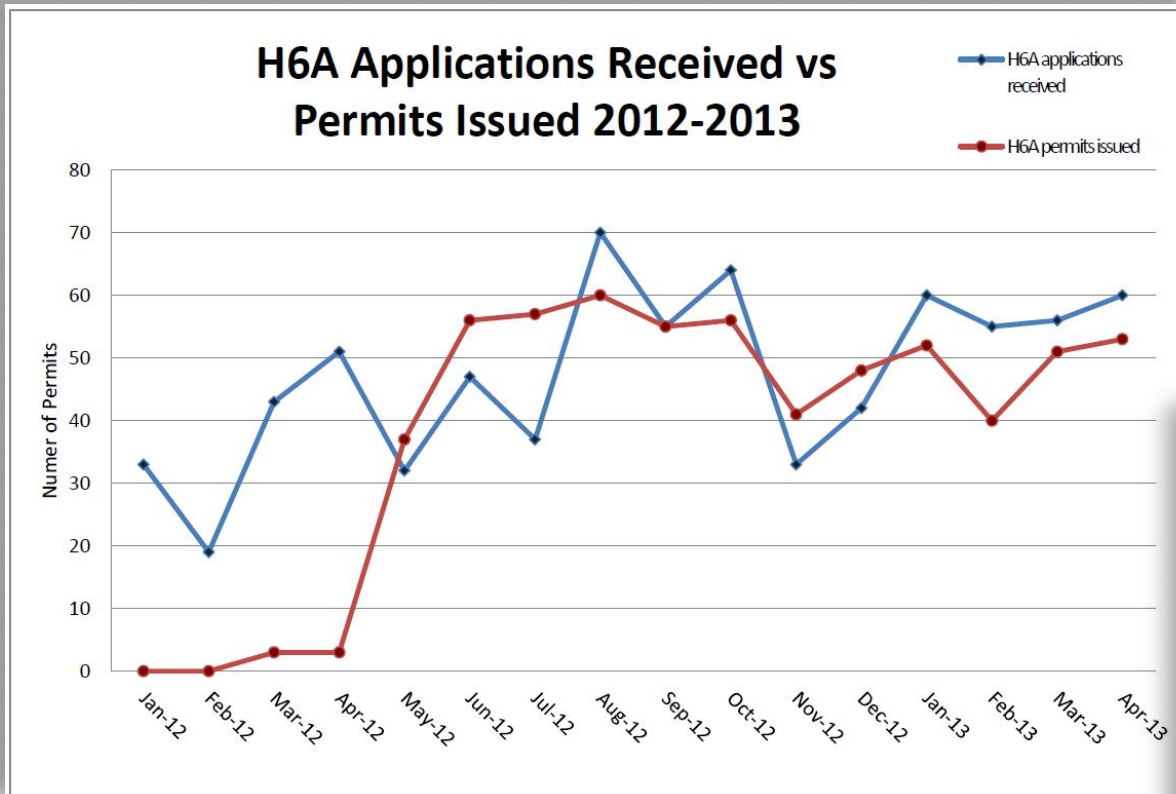
Laura Cooper

Environmental Resources Specialist, Permitting

Oil & Gas Workshop, Charleston Civic Center

May 16, 2013

WV Horizontal 6A Permits Issued Jan 2012 – Apr 2013



Horizontal 6A Wells				
MONTH	Applications Received	Permits Issued #	OOG Days	Total Days
January	60	52	78	88
February	55	40	68	77
March	56	51	58	80
April	60	53	69	77
TOTAL	231	196		
YTD Avg			68	81

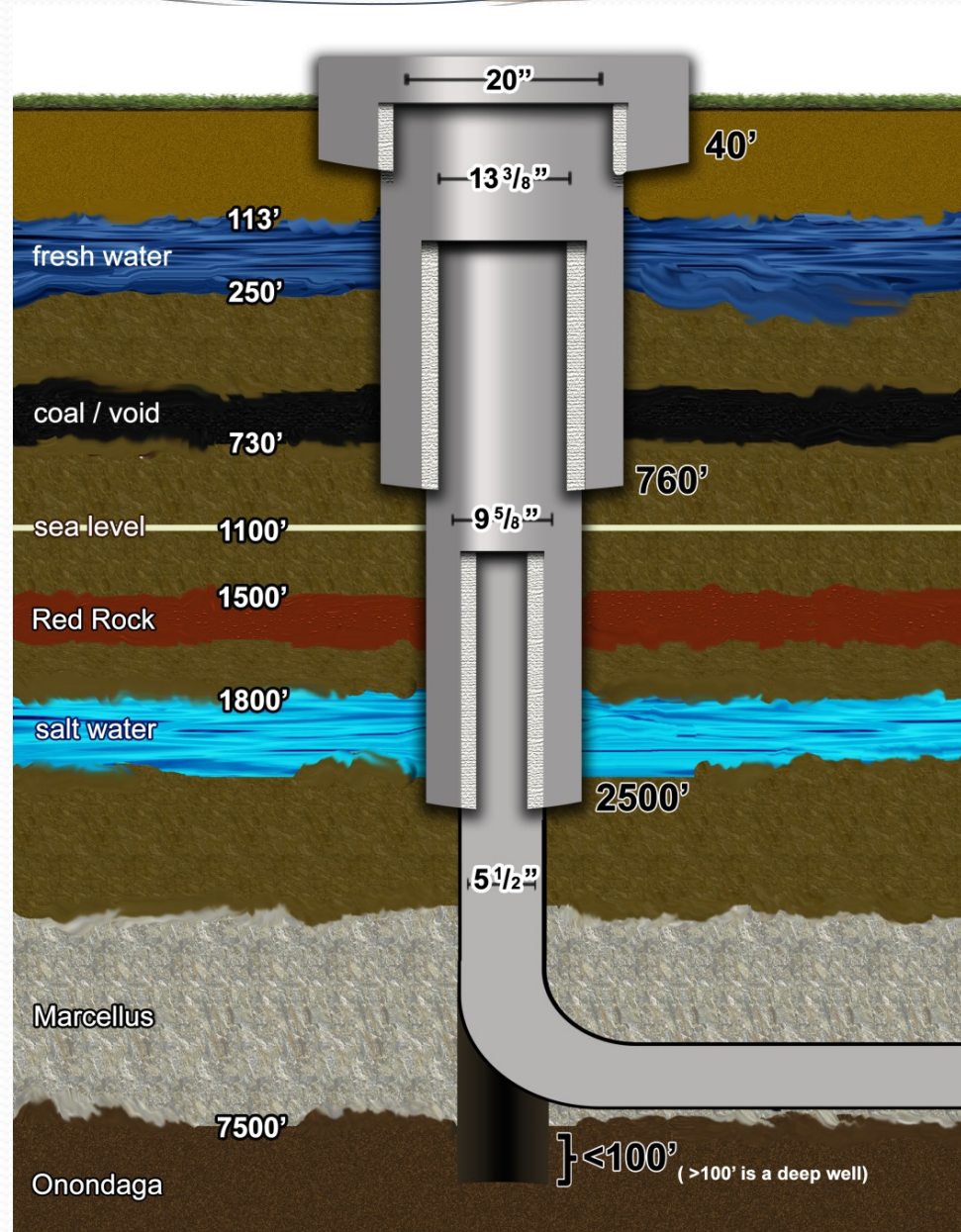
Casing Plans

Fresh Water/Coal

- 300' minimum unless a saltwater, oil, or gas bearing zone is encountered
- Can run deeper to cover workable coal seams (must be cased at least 30' below coal)
- In case of a void, must case off at least 30' not more than 100' past void

Intermediate

- In some areas where Red Rock is a problem, intermediate should not run deeper than around 2500', or be open for >36hrs



Verbal Plugging

35-8 5.1.i and 35-4 13.7

- Verbal plugging can be granted as long as drilling operations have been continually progressing (cannot rig down, move, and request a verbal)
- Submit a plugging permit within 5 days of commencement of plugging operations
- File WR-38 & Plugging Affidavit in a timely manner

Replacement Borehole (H6A only)

35-8 5.1.i

- Request when unable to drill the well
- Must re-notice only coal owner, operator, or lessee & wait 30 day comment period or obtain a waiver
- Replacement application must be identical to original application except coordinates and possible casing design
- Must be on the same pad

Updated H6A Forms

- New 6A1 Lease Form asks for info to link leases to those on plat
- New WW6B asks more info about underlying mines
- Checklist asks that certified mail receipts and/or affidavits of personal service accompany *each notice*
- Provide topo map showing water wells, *not* satellite image, *not* just shown on plat
- Only send applicable forms (ie, if no waiver was signed don't send an unsigned waiver)

WW-6B (3/13)
STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WELL WORK PERMIT APPLICATION

1) Well Operator: _____
 2) Operator's Well Number: _____
 3) Elevation, current ground: _____
 4) Well Type: (a) Gas Oil
 Other _____
 (b) If Gas: Shallow _____ Horizontal _____
 5) Existing Pad? Yes or No: _____
 6) Proposed Target Formation(s), Depth(s), and Direction: _____
 7) Proposed Total Vertical Depth: _____
 8) Formation at Total Vertical Depth: _____
 9) Proposed Total Measured Depth: _____
 10) Approximate Fresh Water Strata Depths: _____
 11) Method to Determine Fresh Water Depth: _____
 12) Approximate Saltwater Depths: _____
 13) Approximate Coal Seam Depths: _____
 14) Approximate Depth to Possible Void (coal mine, karst, other): _____
 15) Does proposed well location contain coal seams directly overlying or adjacent to an active mine? If so, indicate name and depth of mine: _____
 16) Describe proposed well work: _____
 17) Describe fracturing/stimulating methods in detail: _____
 18) Total area to be disturbed, including roads, stockpile area, pits, etc. (acres): _____
 19) Area to be disturbed for well pad only, less access road (acres): _____

WW-6A1 (3/13)
Operator's Well No. _____
INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 50a(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)
Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that—
 (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
 (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

Horizontal 6A Well Permit App. Checklist
 OPERATOR: _____
 PAD NAME: _____ WELL: _____
 PAD BUILT: YES NO DATE REVIEWED: _____ INT. _____
 REVIEWED BY (APPLICANT): _____
 APPLICANT SIGNATURE: _____

CHECKLIST FOR FILING A PERMIT HORIZONTAL 6A WELL
 Please include these required elements in the Horizontal Well 6A applications, in order listed below. Do not use staples.

First Well	Subsequent Well
\$10,150.00 <input type="checkbox"/>	\$5,150.00 <input type="checkbox"/>

- Fees
- Checklist / Cover letter
- WW-6B** Notice of Application Field Approved
- Cement Additives
- Well Bore Schematic
- WW-PN** Application Notice by Publication
- Public Notice (dated copy of advertisement or affidavit of publication)
- WW-6A** Notice of Application notarized w/ any attachments
- Topographic Map with labeled surrounding water wells
- Certified Mail receipts for WW-6A
- WW-6AC** Notice Certifications, notarized
- WW-6A3** Notice of Entry for Plat Survey
- Certified Mail receipts for WW-6A3
- WW-6A4** Notice of Intent to Drill
- Certified Mail receipts for WW-6A4

Revised 3/27/13

Public Notice

WV-PNS
(5-04-2012)

HORIZONTAL NATURAL GAS WELL WORK PERMIT
APPLICATION NOTICE BY PUBLICATION

Notice is hereby given:
Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: The Record Delta

Public Notice Date : 04/12/2013 & 04/19/13

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: CNX Gas Company, LLC Well Number: CENT19AHS,
CENT19BHS, CENT19CHS, CENT19DHS, CENT19EHS

Address: P.O. Box 1248
Jane Lew, WV 26378

Business Conducted: Natural gas production.

Location -

State: West Virginia	County: Upshur
District: Warren	Quadrangle: Century
UTM Coordinate NAD83 Northing: 4,320,811, 4,320,811, 4,320,810, 4,320,810, 4,320,809	
UTM coordinate NAD83 Easting: 572,202, 572,208, 572,214, 572,220, 572,226	
Watershed: Buckhannon River	

Coordinate Conversion:
To convert the coordinates above into longitude and latitude, visit: http://sagis.dep.wv.gov/converts/latlon_coord.php

Electronic notification:
To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/inside/dep/Pages/DEP%20mailing%20list.aspx> to sign up.

Reviewing Applications:
Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DERoop@wv.gov.

Submitting Comments:
Comments may be submitted online at <https://apps.dep.wv.gov/ocg/comments/comments.action>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx
(04-12, 04-19)

- Must be run at least 10 days before application
- Should be run *just prior to* 10 days before application to give public a chance to properly comment
- UTM NAD 83 coordinates must match or come very close to matching those on the plat
- Must be published in the same county as the proposed well

6A Notice of Application

- **Who to send to:**
Surface owners
Coal owner, operator, or lessee
Storage Field operator
Owners of Water Wells w/in 1500'
- **What to send:**
6A Notice Form & Copy of application
E&S Plan
Plat
- **When to send:**
Before application, for every well

WW-6A (5-12) API NO. 47- _____ OPERATOR WELL NO. _____
Well Pad Name: _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.
Date of Notice: _____ Date Permit Application Filed: _____

Notice of:

PERMIT FOR ANY WELL WORK CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b), no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner.

Notice is hereby provided to:

<input type="checkbox"/> SURFACE OWNER(s) Name: _____ Address: _____ Name: _____ Address: _____	<input type="checkbox"/> COAL OWNER OR LESSEE Name: _____ Address: _____
<input type="checkbox"/> SURFACE OWNER(s) (Road and/or Other Disturbance) Name: _____ Address: _____ Name: _____ Address: _____	<input type="checkbox"/> COAL OPERATOR Name: _____ Address: _____
<input type="checkbox"/> SURFACE OWNER(s) (Impoundments/Pits) Name: _____ Address: _____	<input type="checkbox"/> WATER PURVEYOR(s) Name: _____ Address: _____
	<input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD Name: _____ Address: _____

*Please attach additional forms if necessary

General Note on notices:
Fill out dates on each notice, and adhere to instructions for when each notice should be sent

Construction Plans

- **For a new pad:**
Send entire set of Construction, E&S, Reclamation Plans
- **For subsequent wells on an un-built pad:**
Send “Approved WVDEP OOG” set of plans
- **For already built pads:**
Send an As Built plan signed by the engineer

NESS PAD
SITE DESIGN, CONSTRUCTION PLAN, &
EROSION & SEDIMENT CONTROL PLANS
ANTERO RESOURCES APPALACHIAN CORPORATION

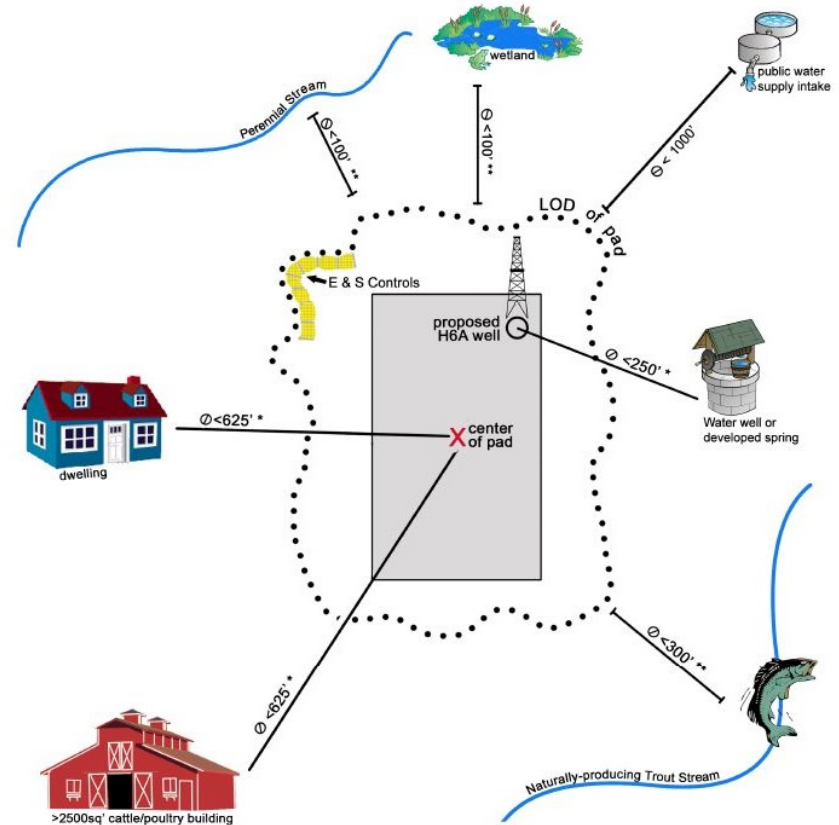
APPROVED WVDEP OOG
5/11/2012
11/16/2012

811
Know what's below.
Call before you dig.

Electronic Version of Plans Can Be Viewed at: QOIL GAS/SAY FILES/REVIEWS

H6A Well Location Restrictions

- Limit of Disturbance should be outside of all Erosion and Sediment Control
- DEP waivers are considered only when absolutely necessary, and on a case-by-case basis (for details see [Rob Pichardo's workshop presentation 2/6/13](#))
- Obtain jurisdictional determination from USACE before applying for well permit



* Unless a waiver is provided from owner of water well, dwelling or farm
** Unless a DEP waiver or ACOE 404 permit is obtained

ePermitting Coming Soon

The screenshot shows the 'west virginia electronic submission system' interface. At the top left is the DEP logo. The main header reads 'west virginia electronic submission system' and 'section list'. Below this, a dark green bar displays user information: 'Current User: COOPER-CONSULTING, LAURA', 'Applicant: COOPER-CONSULTING, LAURA', 'Ref. Id: My Well 1H', 'Type: Horizontal 6A Well', 'Status: New', and 'Permit No.: New/Pending'. The main content area is a list of well identifiers and their associated sections. On the left, a sidebar contains various actions like 'Attachments', 'Comments', 'Activities', 'Print', 'Progress', 'Milestones', 'Change Ref Id', 'Delete Application', 'Request Copy', 'Payment Report', 'Verify Signature', 'Return Home', and 'Log Out'. At the bottom left, there is explanatory text: 'The items listed to the right make up the application. By clicking on each item, you can fill out the'.

west virginia electronic submission system
section list

Current User: COOPER-CONSULTING, LAURA Applicant: COOPER-CONSULTING, LAURA
Ref. Id: My Well 1H Type: Horizontal 6A Well
Status: New Permit No.: New/Pending

<input type="checkbox"/> WW-6B:	<input type="checkbox"/> General Information
<input type="checkbox"/>	<input type="checkbox"/> Target Formations
<input type="checkbox"/>	<input type="checkbox"/> Depth Specifics
<input type="checkbox"/>	<input type="checkbox"/> Well Specifics
<input type="checkbox"/> WW-6B:	<input type="checkbox"/> Casing and Tubing
<input type="checkbox"/> WW-6B:	<input type="checkbox"/> Packers
<input type="checkbox"/> WW-6B:	<input type="checkbox"/> Centralizer, Cement Additives, Borehole Conditioning
<input type="checkbox"/> WW-6B:	<input type="checkbox"/> FRAC Additives
<input type="checkbox"/> WW-PN:	<input type="checkbox"/> Public Notice
<input checked="" type="checkbox"/> WW-6AC:	Notice Certification [Add]
<input checked="" type="checkbox"/> WW-6A:	Notice of Application [Add]
<input checked="" type="checkbox"/> WW-6A2:	Notice of Seismic Activity [Add]
<input checked="" type="checkbox"/> WW-6A3:	Notice of Entry for Plat Survey [Add]
<input checked="" type="checkbox"/> WW-6A4:	Notice of Intent to Drill [Add]
<input checked="" type="checkbox"/> WW-6A4W:	Notice of Intent to Drill Waiver [Add]
<input checked="" type="checkbox"/> WW-6A5:	Notice of Planned Operation [Add]
<input checked="" type="checkbox"/> WW-6RW:	Well Location Restriction Waiver [Add]
<input type="checkbox"/> WW-6AW:	Voluntary Statement of No Objection
<input type="checkbox"/> WW-6AW:	<input type="checkbox"/> Voluntary Statement of No Objection
<input type="checkbox"/> WW-6A1:	<input type="checkbox"/> Lease Form
<input type="checkbox"/> WW-9:	<input type="checkbox"/> Fluids, Cuttings Disposal and Reclamation Plan
<input type="checkbox"/>	<input type="checkbox"/> General Attachments
<input checked="" type="checkbox"/>	Water Management Plan [Add]
<input checked="" type="checkbox"/> IMP-1A:	<input type="checkbox"/> Associated Pit or Impoundment
<input type="checkbox"/> WW-6A7:	<input type="checkbox"/> Well Restriction Checklist

The items listed to the right make up the application.
By clicking on each item, you can fill out the

- ePermitting for H6A applications will be available by November
- Applications will be created, submitted, and reviewed online
- We will be soliciting volunteers soon for beta testing



**Gene C. Smith
Laura K. Cooper**

**DEP Office of Oil and Gas
Permitting
304-926-0450 x1547**

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