



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

February 12, 2018
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

JAY-BEE OIL & GAS, INC.
1720 RT. 22 E

UNION, NJ 070830000


Re: Permit Modification Approval for CURLY 1U
47-095-02446-00-00

Modified Site Plans removing Water Well and replacing with Cistern and Modified Permit Conditions

JAY-BEE OIL & GAS, INC.

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin
Chief

Operator's Well Number: CURLY 1U
Farm Name: JAY-BEE OIL & GAS INC.
U.S. WELL NUMBER: 47-095-02446-00-00
Horizontal 6A / New Drill
Date Issued: February 12, 2018

Promoting a healthy environment.

02/16/2018

PERMIT CONDITIONS

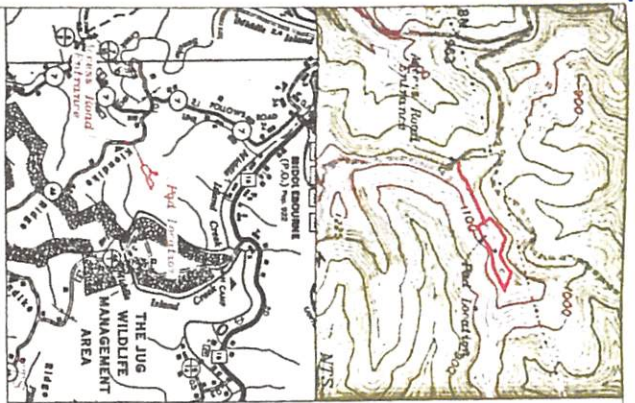
West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

PERMIT CONDITIONS

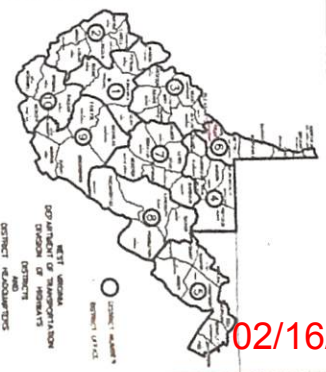
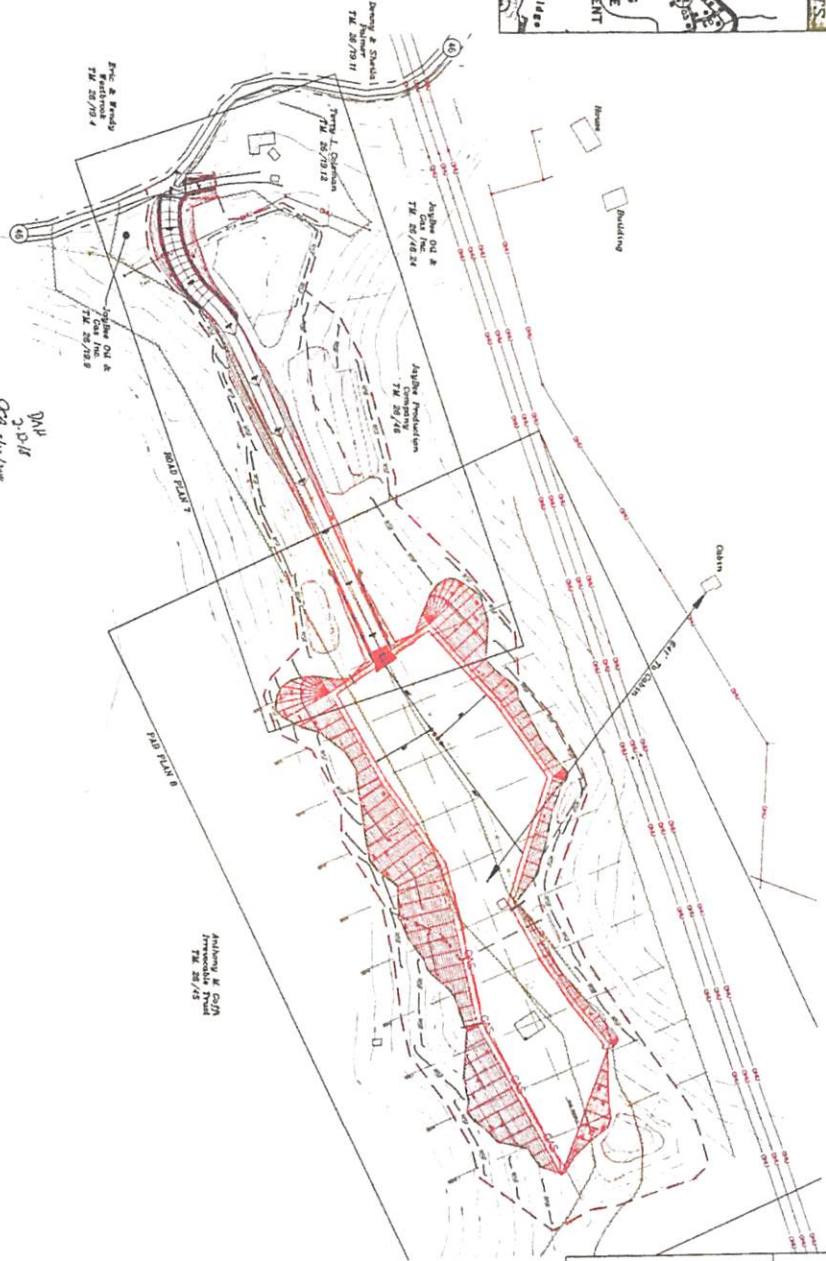
11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



Curly Well Pad Site Plan

Ellsworth District, Tyler County, WV
Prepared for JAY BEE OIL & GAS

Date: February 27, 2017



Sheet Description	
1	Details & Notes
2	Details
3	Details
4	Details
5	Details
6	Details
7	Road Plan & Profile
8	Road Plan
9	Final Program
10	Final Plan & Sections
11	Final Profile & Sections
12	Road Cross Sections
13	Reclamation Plan

CENTER PAD
Geographic NAD 83
Latitude: 39.464099
Longitude: 80.896233

CENTER ROAD INT.
Geographic NAD 83
Latitude: 39.465532
Longitude: 80.900638

TOTAL (Permit) LIMIT OF DISTURBANCE - 9.162 ACRES

TOTAL (Well Pad) LIMIT OF DISTURBANCE - 14.292 ACRES

Note:
No well walls were found within 500' of the well location. One existing well found 651' from the center of the well pad.

Jackson Surveying Inc.
OWNER
SHEET 1
CURLY SITE PLAN

D.E.
Dennis L. Foster, RPE
Professional Engineer
No. 8664
State of West Virginia
Professional Engineer

Design Certification
The drawings, construction notes and program diagrams attached hereto were prepared by me or under my direct supervision and in accordance with the West Virginia Code and Code of State Rules, Division of Environmental Protection, Office of Oil and Gas.
The information reflects a gas well drilling pad.
Dennis L. Foster, RPE
Professional Engineer
02-09-2018

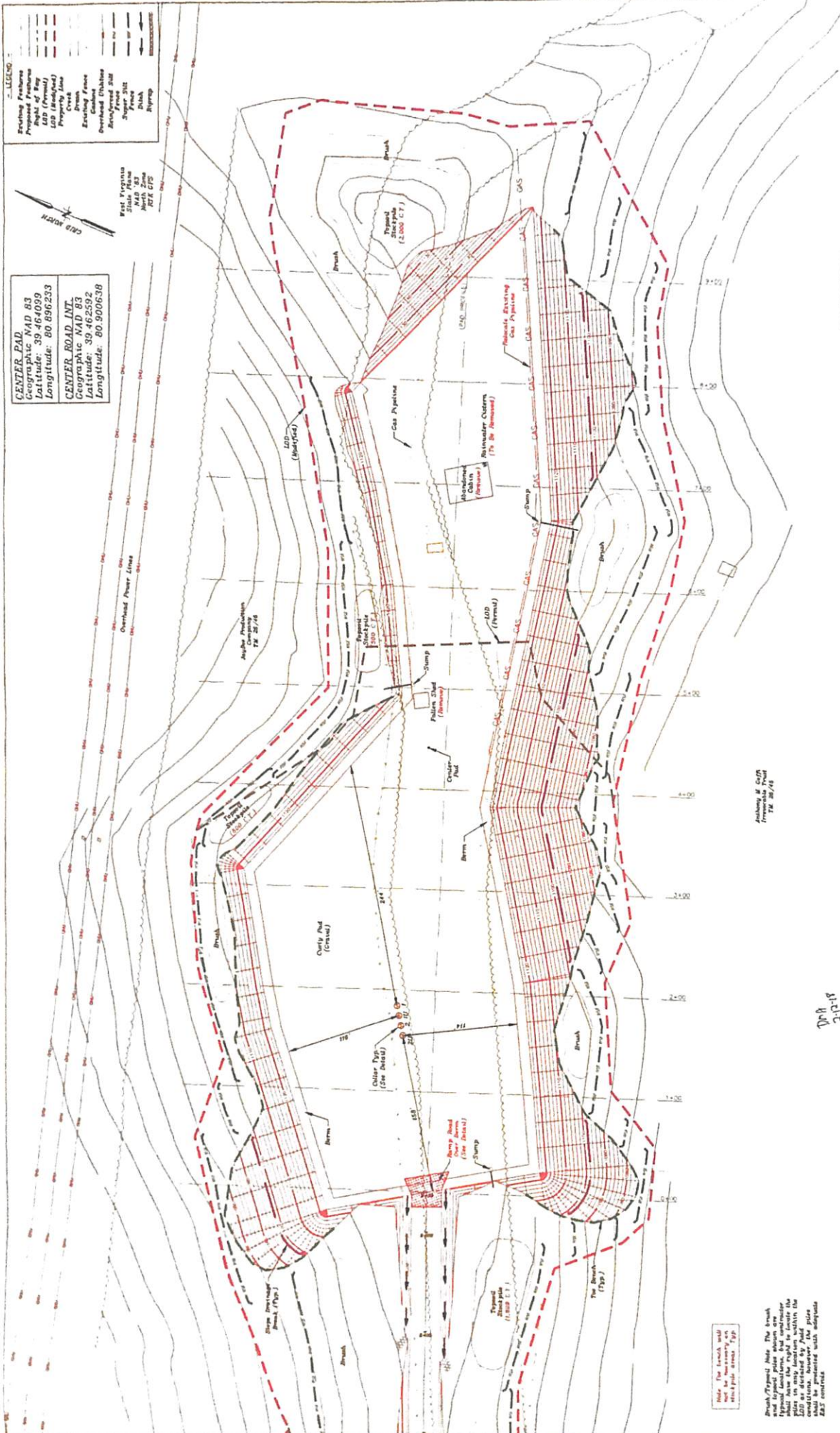
DESIGN CERTIFICATION
No. 8664
State of West Virginia
Professional Engineer
Dennis L. Foster, RPE
02-09-2018

Revisions:

- 02-27-2017: First Issue
- 05-02-2017: Changes Per DEP request
- 09-21-2017: Revised Pad
- 01-22-2018: Changes Per DEP request
- 02-09-2018: Added Custom

WEST VIRGINIA 811
CALL BEFORE YOU DIG!
800.245.4848
www.wv811.com





CENTER PAD
 Geographic NAD 83
 Latitude: 39.4640999
 Longitude: 80.8902533

CENTER ROAD INT.
 Geographic NAD 83
 Latitude: 39.462592
 Longitude: 80.900638

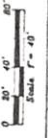
- LEGEND**
- Existing Features
 - Proposed Features
 - Proposed Utility
 - LOD (Permit)
 - LOD (Stockpile)
 - Property Line
 - Stream
 - Existing Fence
 - Overhead Utilities
 - Stockpile 200'
 - Stockpile 300'
 - Stockpile 400'
 - Stockpile 500'
 - Stockpile 600'
 - Stockpile 700'
 - Stockpile 800'
 - Stockpile 900'
 - Stockpile 1000'

East Virginia
 NAD 83
 North Zone
 NAD 83
 NAD 83

Jackson Surveying Inc.
 PROPOSED PAD PLAN
 SHEET 8
 CURLY SITE PLAN

City of Salem
 2018-02-16
 2018-02-16

DLF
 Dennis L. Fisher, RPS
 Professional Engineer
 No. 100,000,000
 Call 504.877.4128
 E-Mail: Public.Engineering@jacksonsurveying.com

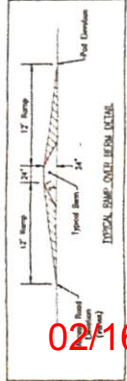


Note:
 No water table was found within 250' of
 ground surface. No utility was found
 60' from the center of the site pad.

DRP
 2-16-18
 CAR 4/12/18

Note: The trench will
 not be necessary on
 this site plan. TYP.

Note: The trench will
 not be necessary on
 this site plan. TYP.



**JAY-BEE OIL & GAS, INC.**

February 12, 2018

Permitting Office
Office of Oil and Gas
West Virginia Dept. of Environmental Protection
601 57th Street SE
Charleston, WV 25304

RE: Curly Pad Engineering Modifications

Permitting Office:

Included in this packet are the two updated pages from the modified construction plans for the Curly 1 API 47-095-02445, Curly 2 API 47-095-02443, Curly 1U API 47-095-02446, Curly 2U API 47-095-02447. The modification that occurred was adjusting the water well noted on the original pad plans to a water cistern noted on the newest set of pad plans.

If you would have any questions concerning this matter, please feel free to contact our office at the numbers listed below.

Sincerely,

Shane Dowell
Office Manager