

Location changes must come with the LT-1 (from the district office), the MD-10-R-A-1, and a survey plat. The Engineers will approve and sign each MD-10-R-A-1. Some location amendments include additional actions such as well name changes as seen in example below.

LT-1 - will have the unit orders, the amendment orders, and the series number, and will determine if you need to issue a letter with the greens. A letter will be required if on a lease basis and any of the following is listed: 29-B, 29-B-1, 29-E, 29-E-U, 29 S, ### Series

MD-10-R-A-1 - location description must reference section, township, range OR distance from monument. If a directional or horizontal well, the bottomhole (BHL) location must follow the same or reference the surface location (SL). Verify description matches plat.

STATE OF LOUISIANA
OFFICE OF CONSERVATION

Sept. 15, 2022

ATTN: PERMIT SECTION
FROM: SHREVEPORT DISTRICT OFFICE

Application for an amended permit from AETHON ENERGY OPERATING LLC
HA RA SUFF, GEP 13-24-25 HC #2-ALT

Sn-252933 the GEP 13-24 HC #2

WOODARDVILLE Field, BIENVILLE Parish,

Invoice # 1255048 4

Check # on line in the amount of \$ 756.00 (6 weeks) 3
\$126 each

Applicable Office of Conservation Order Nos. 29-B, 29-E & 990 Series

Remarks:

- Form MD-10-R-A-1 filed for the changes in the unit to lease, the lease name, and the "as-drilled" BHL of the cross unit horizontal alternate unit well for HA RA SUFF and HA RA SU76 - surface location remains the same.
- Permitted under Order 990-D-133 for a cross unit alternate unit well for HA RA SUFF, HA RA SU76, and HA RA SU77. The lateral did not go into the HA RA SU77 and operator will return to hearing for a new order.
- Completed in the HA RA on 07/21/2022 - paperwork submitted under the lease name.
- Operator will produce under a test allowable pending new order release, Dkt 22-564

-Comments match SPS
-Plat for location update. %s verified,
will be assigned once as-drilled order
issued/lease to unit
amendment filed.

By: Marie Maranto
District Engineer

STATE OF LOUISIANA
OFFICE OF CONSERVATION FORM MD-10-R-A-1
APPLICATION TO AMEND PERMIT TO DRILL FOR MINERALS
TYPE ONLY - FILE IN DUPLICATE
(Print on PINK paper)

AUG 25 2022
OFFICE OF CONSERVATION
SHREVEPORT, LA

CURRENT

SERIAL NUMBER: 252933 1
DATE OF APPLICATION: August 20, 2022 EFF DATE OF CHANGE: July 21, 2022 2

PARISH: BIENVILLE CODE NO. 07
FIELD: WOODARDVILLE CODE NO. 9803
OPERATOR: AETHON ENERGY OPERATING LLC CODE NO. A1760

ADDRESS: 12377 MERIT DR. STE. 1200
DALLAS, TX 75251

WELL NAME: HA RA SUFF, GEP 13-24 HC No. 002 LUW: 307081 12

LOCATION: Section: 12 Township: 15N Range: 10W
NO CHANGE: AS DRILLED BHL: 360' FNL & 132' FEL OF S25-T15N-R10W,
HA RA SUFF 11

ACTION: PARISH: FIELD: OPERATOR: LEASE TO UNIT: UNIT TO UNIT:
WELL NO.: SWD: X LOCATION: UNIT TO LEASE: LEASE TO LEASE: 13

CURRENT PRODUCT: OIL 6 X GAS OTHER:

COMPLETION ZONE: HAYNESVILLE RES A

APPLICABLE CONSERVATION ORDERS: 990-D-133 198/206/990 - Permit

FOR ADDITIONAL INFORMATION, CONTACT: BRENDA RAMIREZ
Phone No.: 512-917-1482

SUBMITTED BY: BRENDA RAMIREZ
SIGNATURE: Brenda Ramirez
APPLICANT'S REPRESENTATIVE SIGNATURE
Phone No.: 512-917-1482

FORMERLY

WELL NAME: HA RA SUFF, GEP 13-24-25 HC No. 002-ALT 5
OPERATOR: CODE NO.
PARISH: CODE NO.
FIELD: CODE NO.

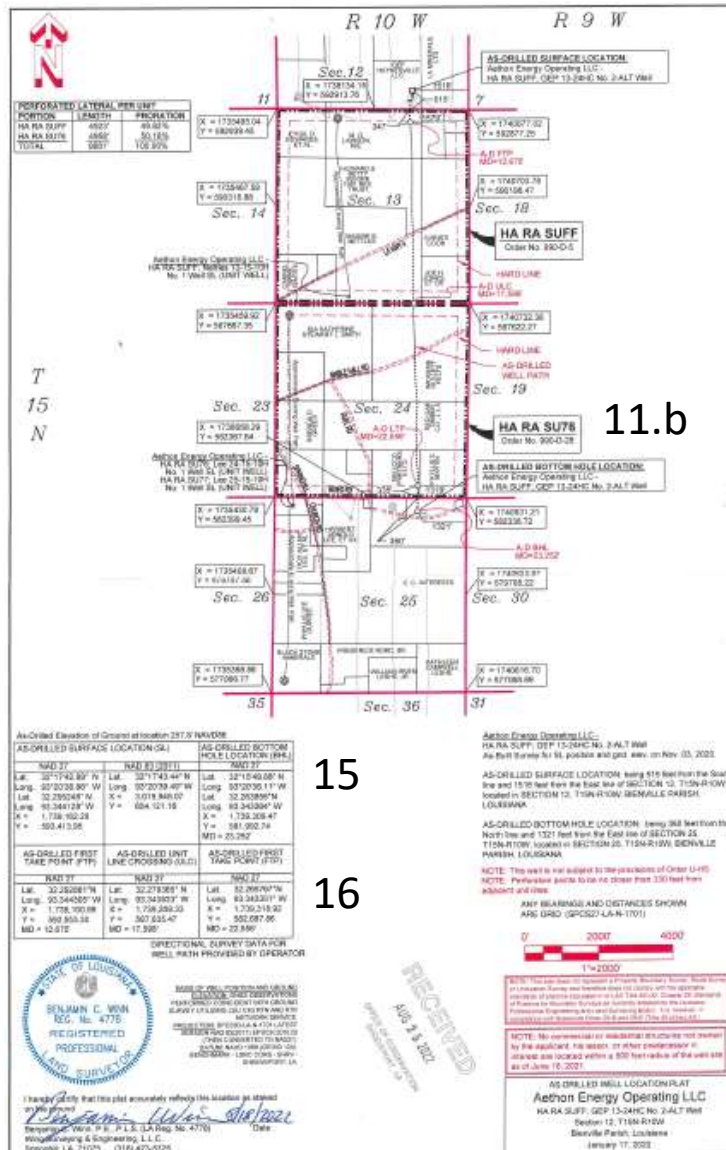
SUBMITTED BY: BRENDA RAMIREZ/AGENT
SIGNATURE: Brenda Ramirez
FORMER OPERATOR REPRESENTATIVE
Phone No.: 512-917-1482 Date: August 20, 2022

OFFICE USE ONLY
DISTRICT APPROVAL: Marie Maranto DATE: 09/15/22
ISSUED BY: Carly H. Wickett DATE: 04/20/23
ISSUING AUTHORITY: Carly H. Wickett

FORM MD-10-R-A-1 (07/2014)

Location changes – plat review prior to data entry

Plat – compare location description on plat to that on MD-10-R-A-1 to verify no typos. SL and BHL will be keyed in. Plats occasionally include additional location descriptions (perforations, take points, etc).



15. Coordinates – more details in later slide

11

AS-DRILLED SURFACE LOCATION: being 515 feet from the South line and 1516 feet from the East line of SECTION 12, T15N-R10W, located in SECTION 12, T15N-R10W, BIENVILLE PARISH, LOUISIANA


9

AS-DRILLED BOTTOM HOLE LOCATION: being 360 feet from the North line and 1321 feet from the East line of SECTION 25, T15N-R10W, located in SECTION 25, T15N-R10W, BIENVILLE PARISH, LOUISIANA

E: ~~HA-PA-SUFF~~; GEP 13-24 HC No. 002 LUW:

D: Section: 12 Township: 9 15N Range: 10W

SL: NO CHANGE; AS DRILLED BHL: 360' FNL & 1321' FEL OF S25-T15N-R10W,

11  HA PA SUT6 11

11.a If "no change" is listed for SL, verify latest location record in SONRIS matches. Conservation (E and G) > wells > Maintain Well Data. Enter into query mode (select icon or F7), enter well serial num, then execute query (select icon or F8). Latest location description displays in the Location field. If the location does not match the plat, return to engineer.

SRCN2615 - Maintain Well Data 01/19/2023 01:37 PM

Strategic Online Natural Resources Information System

Current Well Information

Well Serial Num 252933 Well Name HA RA SUFF;GEP 13-24-25 HC

Well Status Date 07/21/2022 Well Status 10 ACTIVE - PRODUCING Classification

Product Type 20 GAS API Num 17013222440000

Section 012 Township 15N Range 10W Meridian W Parish 07 BIENVILLE

Location 515' FSL & 1516' FEL OF SEC 12-15N-R10W. PBHL: 500' FNL & 1306' FEL OF SEC 25-T15N-R10W, HA

Well Operation Info 11.a Injection Info Well Miscellaneous Info Mineral Info

11.b. If well is a cross unit (well name ending in HC as in this sample), the bottomhole unit(s) should be listed in the description. Compare to the plat to verify it's the correct unit.

9. Section, Township, Range – this is always in reference to the surface location. Confirm matches plat. Some water locations do not have STR and are keyed in as 000

Location changes – plat review prior to data entry

Coordinates - SONRIS prioritizes 1927 State Plane x ys over all other types. As such, key in that data when multiple options available on plat.

Surface Coordinates				
Ground Elevation	Lambert X	Lambert Y	Zone	Coordinate System
257.8	1739162	593414	N	01 1927 LAMBERT...

The zone will be north or south. If not clear on the plat, use state reference below- north of the line is north; south is south.



15

As-Drilled Elevation of Ground at location 257.8' NAVD88

AS-DRILLED SURFACE LOCATION (SL)		AS-DRILLED BOTTOM HOLE LOCATION (BHL)
NAD 27	NAD 83 (2011)	NAD 27
Lat. 32°17'42.89" N	Lat. 32°17'43.44" N	Lat. 32°15'49.88" N
Long. 93°20'38.86" W	Long. 93°20'39.49" W	Long. 93°20'36.11" W
Lat. 32.295248° N	X = 3,019,948.07	Lat. 32.263856° N
Long. 93.344128° W	Y = 654,121.16	Long. 93.343364° W
X = 1,739,162.29		X = 1,739,309.47
Y = 593,413.95		Y = 581,992.74
		MD = 23.252'
AS-DRILLED FIRST TAKE POINT (FTP)		AS-DRILLED UNIT LINE CROSSING (ULC)
NAD 27	NAD 27	NAD 27
Lat. 32.292881° N	Lat. 32.279365° N	Lat. 32.265767° N
Long. 93.344305° W	Long. 93.343833° W	Long. 93.343351° W
X = 1,739,100.99	X = 1,739,208.33	X = 1,739,318.92
Y = 592,553.30	Y = 587,635.47	Y = 582,687.86
MD = 12.675'	MD = 17.598'	MD = 22.556'

16

DIRECTIONAL SURVEY DATA FOR WELL PATH PROVIDED BY OPERATOR



In all cases, if not sure which record to key in, ask!

Location changes – other info review prior to data entry

ACTION – Field 13 verify selected actions correspond to amendment/well data. Confirm existing SONRIS data to Amendment. If anything is missing or conflicts, return to engineer.

CURRENT SERIAL NUMBER: 252933
 DATE OF APPLICATION: August 20, 2022 EFF DATE OF CHANGE: July 21, 2022
 PARISH: BIENVILLE CODE NO.: 07
 FIELD: WOODARDVILLE CODE NO.: 9803
 OPERATOR: AETHON ENERGY OPERATING LLC CODE NO.: A1760
 ADDRESS: 12377 MERIT DR, STE. 1200 DALLAS, TX 75251
 OFFICE OF CONSERVATION PERMIT SECTION
 WELL NAME: HA RA SUFF, GEP 13-24 HC No. 002 LUW: 307081
 LOCATION: Section: 12 Township: 15N Range: 10W
 SL: NO CHANGE; AS DRILLED BHL: 380' FNL & 1321' FEL OF S25-T15N-R10W, HA RA SUFF
13 ☐ PARISH ☐ FIELD ☒ OPERATOR ☒ LEASE TO UNIT ☒ UNIT TO UNIT
 CURRENT PRODUCT: ☐ OIL ☒ GAS ☐ OTHER:
 COMPLETION ZONE: HAYNESVILLE RES A
 APPLICABLE CONSERVATION ORDERS: 198/206/990-Deer
 FOR ADDITIONAL INFORMATION, CONTACT: BRENDA RAMIREZ Phone No.: 512-917-1482
 SUBMITTED BY: BRENDA RAMIREZ
 SIGNATURE: *Brenda Ramirez*
 Phone No.: 512-917-1482
FORMERLY WELL NAME: HA RA SUFF, GEP 13-24 HC No. 002-ALT LUW:
 OPERATOR: CODE NO.:
 PARISH: CODE NO.:

5. In this example, Location, Unit to Lease, and Lease to Lease are selected. Due to the Unit to Lease and Lease to Lease change, the formerly field must display the existing well name in SONRIS (see Field 5).

In SONRIS, access Conservation (E and G) > wells > Maintain Well Data. Enter into query mode (select icon or F7), enter well serial num, then execute query (select icon or F8). Compare current data to formerly field to ensure that the record is correct. Ensure remaining items not changing (Parish, Field, Operator) matches on form.

SRCN2615 - Maintain Well Data 01/23/2023 02:01 PM
 Strategic Online Natural Resources Information System
 Current Well Information
 Well Serial Num: 252933 Well Name: HA RA SUFF, GEP 13-24-25 HC Well Num: 002-ALT Effective Date: 07/21/2022
 Well Status Date: 07/21/2022 Well Status: 10 ACTIVE - PRODUCING Classification: Well Class Type Code:
 Product: 20 GAS API Num: 17013222440000 Well Count: 1 ☒ Horizontal
 Type Section: 012 Township: 15N Range: 10W Meridian: W Parish: 07 BIENVILLE ☐ Directional
 Location: 515' FSL & 1516' FEL OF SEC 12-15N-R10W, PBHL: 500' FNL & 1306' FEL OF SEC 25-T15N-R10W, HA ☐ Exclude from Scout ☐ Offshore
 Well Operation Info Injection Info Well Miscellaneous Info Mineral Info Orphan Info
 Field ID: 9803 Field Name: WOODARDVILLE
 Organization: A1760 AETHON ENERGY OPERATING LLC 01 PRODUCER/OPERATOR

LUW – Field 12 if well has a status (33, 10) that requires LUW based on the effective date of the amendment, verify correct LUW on form or create if necessary. See LUW Lookup guide. In this example, since there is a change to the well name and well status is 10, LUW required. See next slide regarding cross unit wells.

Per LUW lookup guide, LUW is correct (f). If conflict, notify engineer.

SRCN2240 - Retrieve LUWs by Name 01/23/2023 02:14 PM
 Strategic Online Natural Resources Information System
 LUW Name Inquiry
 LUW Code: LUW Name: GEP 13-24 HC LUW Type: Field ID: 9803
☐ All ☒ Current
 Retrieved LUWs

LUW Name	LUW Code	LUW Type	Sts	Prod Type	Effective Date	Fld ID	Org ID	Order Number	Order Date
GEP 13-24 HC	307081	7	1	20	07/21/2022	9803	A1760		

FEE - Location changes are paid (currently \$126). Verify via invoice reference on LT1 that \$126 has been paid. If additional actions on amendment, \$126 is only fee required.

Location changes – other info review prior to data entry – HC wells

Cross unit wells (wells with names that end in HC) will be lease basis or unit basis. Unit basis cross unit wells with LUW code assignment require an additional worksheet since there will be multiple LUWs associated with the serial number, and there are different operations to key in unit basis cross unit wells LUW codes.

Example of unit basis (; in name) cross unit (ends in HC) well with LUWs:

OPERATOR: **BPX OPERATING COMPANY** CODE NO. **B6983**

ADDRESS: **15377 Memorial Dr, Houston, TX 77079**

WELL NAME: **HA RA SUZZ;ELSTON 21-28HC** No. **1-ALT** LUW:

LOCATION: Section: **16** Township: **16N** Range: **11W**

Surface Location: **348' FSL 1795' FEL of Sec 16-T16N-R11W Bossier Parish** *Same*

BHL 358' FSL 1590' FEL of Sec 28-T16N-R11W Bossier Parish *Well path*

HA RA SU104

Example of lease basis (no ; in name) cross unit (ends in HC) with LUW:

DALLAS, TX 75251 PERMIT SECTION

WELL NAME: **HA RA SUZZ; GEP 13-24 HC** No. **002** LUW: **807061**

LOCATION: Section: **12** Township: **15N** Range: **10W**

SL: NO CHANGE; AG DRILLED BHL: 380' FNL & 1321' FEL OF S25-T15N-R10W

HA RA SU76

Example of unit basis cross unit well worksheet:

SN 253218

Unit Order Information

Well orientation: **North to south**

Top of Perfs Unit

Unit	HA RA SUZZ
Order No.	361-L-229
Effective	6/8/2021
Acreage	640
Product	Gas
Completion	7/6/2022
LUW	615541
Percentage	50.72%
Field	Elm Grove (3608)
Multi Parish Unit?	Bossier

Bottom Perfs Unit

Unit	HA RA SU104
Order No.	361-L-229
Effective	6/8/2021
Acreage	640
Product	Gas
Completion	7/6/2022
LUW	616197
Percentage	49.28%
Field	Elm Grove (3608)
Multi Parish Unit?	Bossier

No cross unit well worksheet. If one included, ask engineer why.

If you receive a unit basis cross unit as-drilled amendment for a well that does not have LUWs yet has a completion date (ie, requires LUW assignment), contact engineer for worksheet.

Location changes – other info review prior to data entry – Unit Basis HC wells

Conservation (E and G) > fields > Maintain LUW

Unit basis cross unit wells with LUW code assignment require the LUW history records to have the cross unit flag selected in sequence to the earliest cross unit well associated with the LUW. In the depicted example, LUWs 615541 and 616197 must have cross unit flag selected since at least 7/6/2022. Visit Maintain LUW and query each record to confirm cross unit flag selected.

Top of Perfs Unit

Unit	HA RA SUZZ
Order No.	361-L-229
Effective	6/8/2021
Acreage	640
Product	Gas
Completion	7/6/2022
LUW	615541
Percentage	50.72%
Field	Elm Grove (3608)
Multi Parish Unit?	Bossier

Bottom Perfs Unit

Unit	HA RA SU104
Order No.	361-L-229
Effective	6/8/2021
Acreage	640
Product	Gas
Completion	7/6/2022
LUW	616197
Percentage	49.28%
Field	Elm Grove (3608)
Multi Parish Unit?	Bossier

Note- LUW cross unit flag effective date is determined by arrow on cross unit worksheet. In all cases, the LUW cross unit effective date cannot precede the cross unit Order effective date. Both LUWs will have same effective dates. If conflict, ask engineer.

SRCN2010 - Maintain LUW 01/25/2023 01:02 PM

Strategic Online Natural Resources Information System

LUW CODE
LUW Code 615541 2 UNIT
☒ Survey Plat ☐ LUW Checked
Survey Email Sent Reason for Email

Creation Order Number 361-L-20

Effective Date 07/06/2022 End Date
Product Type 20 GAS
Field ID 3608 ELM GROVE
LUW Status ACTIVE Organization B6983 BPX OPERATING COMPANY
Sand HA Reservoir RA Order Num 361-L-229 Effective Date 06/08/2021 Unit 640 Acreage

LUW History
LUW Name HA RA SUZZ;
☒ Competitive Unit ☒ Cross-Unit Flag

SRCN2010 - Maintain LUW 01/25/2023 01:02 PM

Strategic Online Natural Resources Information System

LUW CODE
LUW Code 616197 2 UNIT
☒ Survey Plat ☐ LUW Checked
Survey Email Sent Reason for Email

Creation Order Number 361-L-62

Effective Date 07/06/2022 End Date
Product Type 20 GAS
Field ID 3608 ELM GROVE
LUW Status ACTIVE Organization B6983 BPX OPERATING COMPANY
Sand HA Reservoir RA Order Num 361-L-229 Effective Date 06/08/2021 Unit 640 Acreage

LUW History
LUW Name HA RA SU104;
☒ Competitive Unit ☒ Cross-Unit Flag

Effective Date 08/01/2019 End Date 07/05/2022
Product Type 20 GAS
Field ID 3608 ELM GROVE
LUW Status ACTIVE Organization B6983 BPX OPERATING COMPANY
Sand HA Reservoir RA Order Num 361-L-110 Effective Date 10/18/2011 Unit 101 Acreage 640

Both LUWs have necessary cross unit flag selected and LUW names, operator, field match pink and worksheet. Ready for data entry- proceed to LUW Assignment – Unit Basis HC Well – Data Entry.