

**JOHN BEL EDWARDS**  
GOVERNOR



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SECRETARY

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COMMISSIONER OF CONSERVATION

**State of Louisiana**  
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF CONSERVATION

**FIFTH SUPPLEMENTAL AND AMENDING  
DECLARATION OF EMERGENCY AND DIRECTIVE  
(EMER18-003)**

**Pursuant to the authority** granted to the Commissioner of Conservation and Assistant Secretary of the Louisiana Department of Natural Resources under La. R.S. 30:1, et seq., particularly La. R.S. 30:6.1;

**It is hereby declared** that the original Declaration of Emergency and Directive for EMER18-003 was dated and issued on September 7, 2018 (Original Declaration Date).

**It is hereby declared** that on the Original Declaration Date it was determined that thermogenic natural gas had been detected in, reported to have entered into, and remained present in the Carrizo-Wilcox aquifer (aquifer) in, among other places, Section 28, Township 13 North, Range 15 West in DeSoto Parish.

**It is hereby declared** that on September 20, 2017 a Declaration of Emergency was issued with respect to the Hanson RSW (031-5051Z) which was the rig supply well for the C H Hanson No. 1 (SN 169060), a well in Section 28 that had been declared orphaned under the Oilfield Site Restoration program (OSR).

**It is hereby declared** that on October 24, 2017 a Declaration of Emergency was issued with respect to the Billingsley RSW (031-5055Z) which was the rig supply well for the Robert Billingsley No. 1 (SN 171884), a well in Section 28 that had been declared orphaned under the OSR program.

**It is hereby declared** that on the Original Declaration Date the prior Declarations of Emergency for the Hanson well and the Billingsley well were incorporated into and have been administered under EMER18-003.

**It is hereby declared** that, as a result of the foregoing, the original Smyrna EMER18-003 Area of Investigation or "AOI" was declared to include Sections 21, 22, 23, 26, 27, 28, 33, 34 and/or 35 of Township 13 North, Range 15 West, DeSoto Parish.

**It is hereby declared** that, pursuant to the Fourth Supplemental and Amending Declaration of Emergency and Directive issued on November 15, 2019, the AOI was reduced to an area that was

limited to the South Half of Section 22, all of Section 27 and the East Half of Section 28, Township 13 North, Range 15 West, DeSoto Parish.

**It is hereby declared** that based on the findings set forth below, the Smyrna EMER18-003 AOI should be further reduced to eliminate the East Half of Section 28, Township 13 North, Range 15 West, DeSoto Parish. Map 1, attached hereto, shows the Reduced AOI as of the Fourth Supplemental and Amending Declaration of Emergency, and shows the general locations of the sites in the East Half of Section 28 which are referenced below.

**It is hereby declared** that, based on the following, it has been determined that free natural gas and excessive pressure are no longer present in the aquifer in the vicinity of the Hanson OSR site. The approximate locations of the features of the Hanson OSR site are depicted on Map 2, attached hereto.

- 1) A pressure release at the Hanson RSW was initially reported in April, 2017.
- 2) A second pressure release at the Hanson RSW was reported in July, 2017.
- 3) In November, 2017, four auger holes were drilled in the north, south, east and west portions of the Hanson OSR site. The depths of the auger holes ranged from 34' bgs to 42' bgs, and all four auger holes encountered free natural gas. No gas bubbles or other indications of natural gas were observed at the auger holes after December 8, 2017.
- 4) The north auger hole was deepened to 289' bgs and was converted to a relief well (031-9826Z) (Hanson RW). The Hanson RW produced gas and water from December 2, 2017 until January 13, 2019. Pressure data from the Hanson RW indicate that the well stopped producing due to depletion.
- 5) Sand and water boils were observed in the pipeline right of way at the Hanson OSR site on October 31, 2017. No bubbling or other surface expressions were reported in the pipeline right-of-way after December 11, 2017.
- 6) In August, 2019, an AquaTroll monitoring tool was installed in the Hanson RW. The initial water level in the well on or about August 31, 2019 was over 261' msl and the water level on March 15, 2020 was under 258' msl. This data is evidence that the Hanson RW is in communication with the aquifer and that the pressure in the aquifer has declined over that time. The AquaTroll chart for the Hanson RW is attached as Exhibit A.
- 7) On February 27, 2020, a bore hole was installed at DB-11 on the Hanson OSR site to a depth of 36' bgs. No free natural gas or excess pressure were detected at DB-11. It was reported to the Department that, based on field observations, no soil samples were warranted or taken.
- 8) Water samples collected from the Hanson RW detected thermogenic methane in the dissolved gasses with the concentrations declining over time. Benzene was also detected in the water samples from the Hanson RW when it was flowing up the casing.

After the well stopped flowing up the casing, an attempt was made to sample the well through the tubing, but pipe dope or some other substance was found to be present in the tubing. Due to the inability to obtain a representative sample of aquifer water from the Hanson RW, sampling of the well was discontinued.

Date	Methane (Mol. %)
12/29/2017	97.80
9/4/2018	82.25
10/8/2018	80.44

**It is hereby declared** that, based on the following, it has been determined that free natural gas and excessive pressure are no longer present in the aquifer in the vicinity of the Billingsley OSR site. The approximate locations of the features of the Billingsley OSR site are depicted on Map 3, attached hereto.

- 1) A pressure release at the Billingsley RSW was observed on October 19, 2017.
- 2) On November 4, 2017, an auger hole was drilled to 84' on the Billingsley OSR site with no observation of free gas or water flow.
- 3) The auger hole was converted to a relief well (Billingsley RW) (031-9825Z) and was drilled to a total depth of 460' bgs with 5-1/2" casing set at 259' bgs. When it was open, the Billingsley RW produced fresh water and minimal volumes of natural gas from November 16, 2017 to July 22, 2019. In November, 2017, the initial rate was tested at 119 bbls/day. In June, 2018, it was producing water at the rate of 51 bbls/day. By September, 2018, the relief well was producing water at a low rate. From September 27, 2018 to July 22, 2019, the CES recorded the time required for the well to fill a 32-oz bottle. The time steadily increased from 19.22 seconds to 125.50 seconds. In August, 2019, the well was drawn down for sampling and the water level has never returned to the surface. This data is evidence of the reduction in the pressure in the aquifer at the Billingsley OSR site.
- 4) In August 2019, an AquaTroll monitoring tool was installed in the Billingsley RW. The initial water level in the well on August 12, 2019 was just under 270' msl and the water level on March 15, 2020 was just over 261' msl. This data is evidence that the Billingsley RW is in communication with the aquifer and that the pressure in the aquifer has declined over that time. The AquaTroll chart for the Billingsley RW is attached as Exhibit B.
- 5) Benzene has never been detected in water samples collected from the Billingsley RW. Sample results show that the concentration of methane in the dissolved gasses has declined over time.

Date	Methane (Mol. %)
9/4/2018	70.53
10/23/2018	66.60
8/7/2019	63.08
11/12/2019	23.64

**It is hereby declared** that, bascd on the following, it has been determined that free natural gas and excessive pressure are no longer present, if ever present, in the aquifer in the vicinity of the C. L. Bryant pond. The approximate locations of the features of the C.L. Bryant pond site are depicted on Map 4, attached hereto.

- 1) Bubbling was reported to have been observed in the C. L. Bryant pond situated in the Southeast Quarter of the Southeast Quarter of Section 28, south of the Hanson OSR site. Bubbling was reported intermittently during the latter part of 2017 and the first part of 2018. No bubbling has been reported since the first part of 2018.
- 2) On February 27, 2020, a bore hole was installed at DB-10 near the north end of the C.L. Bryant pond to a depth of 22' bgs. No free natural gas or excess pressure were detected at DB-10. It was reported to the Department that, based on field observations, no soil samples were warranted or taken.

**It is hereby declared** that, based on the following, it has been determined that free natural gas and excessive pressure are no longer present, if ever present, in the aquifer in the vicinity of the Thomas 28 #1 (SN 229067) well pad. The approximate locations of the features of the Thomas 28 #1 well pad are depicted on Map 5, attached hereto.

- 1) On February 10, 2018, small bubbling events were observed on the well pad for the Thomas 28 well. The last report of bubbling on the well pad was on February 26, 2018.
- 2) On June 28, 2018, a crevice was discovered just off of the east side of the Thomas 28 well pad. The crevice site was near the location of the rig supply well for the Thomas 28 well. The crevice appeared to have been formed by a pressure release. A stand pipe was placed in the bottom of the crevice and the crevice was filled around it. The last time any bubbling in the water at the bottom of the pipe was observed was on September 21, 2018.
- 3) On February 26, 2020, a bore hole was installed by ICON at DB-9 near the site of the former crevice near the Thomas 28 well pad to a depth of 32' bgs. No free natural gas or excess pressure were detected at DB-9. It was reported to the Department that, based on field observations, no soil samples were warranted or taken.

- 4) Initial lab results from water samples taken by HET from DB-9 detected benzene above the RECAP screening standards. HET's initial lab results for water samples from DB-9 also detected toluene and xylene, but both were well below RECAP screening standards. HET has installed a confirmatory well at DB-9CFM and is awaiting complete lab results on samples taken from that well.

**It is hereby declared** that except for the conditions described above at the Hanson OSR site, the Billingsley OSR site, the C.L. Bryant pond and the Thomas 28 #1 well pad, there have been no other reported indications of free natural gas or excessive pressure in the aquifer under the East Half of Section 28.

**It is hereby declared** that the only registered active domestic water well in the East Half of Section 28 is 031-9769Z situated on property owned by C.L. Bryant, and there is no evidence that it has been impacted by the emergency conditions.

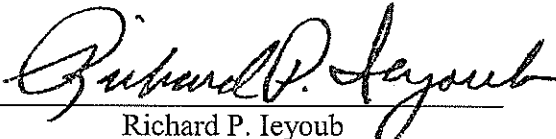
**It is hereby declared** that the presence of benzene in the Hanson RW and in DB-9 (subject to confirmation) appear to be localized, residual occurrences. Benzene has not been detected in any domestic water well within the boundaries of the original nine-section AOI, including, but not limited to the C.L. Bryant well. Therefore, the presence of benzene in the Hanson RW and in DB-9 does not present an incident or situation constituting an emergency under La. R.S. 30:6.1.

**THEREFORE, IT IS HEREBY DECLARED** that the declaration of emergency is hereby terminated as to the East Half of Section 28, Township 13 North, Range 15 West, DeSoto Parish.

**It is further declared** that the Smyrna EMER18-003 Area of Investigation or "AOI" is hereby reduced to the South Half of Section 22 and all of Section 27, Township 13 North, Range 15 West, DeSoto Parish. Map 6, attached hereto, depicts the Reduced AOI based on this declaration.

**It is further declared** that the Commissioner retains jurisdiction over the East Half of Section 28 pursuant to his emergency authority and pursuant to his authority under the OSR program. Such jurisdiction is retained for all purposes necessary or proper in the circumstances, including, without limitation, the removal, plugging and abandonment of relief wells and other facilities and equipment, the restoration of sites, the removal or remediation of any E&P waste and the final closure of the emergency area and the OSR sites.

SO DECLARED, ORDERED, AND DONE this 28<sup>th</sup> day of April, 2020, at Baton Rouge, Louisiana.

  
Richard P. Ieyoub  
Commissioner of Conservation