



NOTICE OF VIOLATION

June 10, 2022

NOV: V22-0031
Compliance ID: 12266986

Mr. Faisal Latif
California Resources Elk Hills, LLC
900 Old River Road
Bakersfield, CA 93311

VIOLATION: SURFACE EXPRESSION

FIELD: Elk Hills; **Lease** Section 13; SEC. 13 T.31S R.23E MD

DATE OF SURFACE EXPRESSION: June 10, 2022

INSPECTOR: Marvelous Egboro (Remote Witness)

Reference: Public Resources Code (PRC) section 3106, subdivision (a).
California Code of Regulations, title 14, (CCR) sections 1724.11, 1724.6, 1724.7, and 1724.10

Dear Mr. Faisal:

On June 10, 2022, California Resources Elk Hills, LLC (CRC) reported a surface expression that occurred on the "**Section 13**" lease at coordinates Lat. 35.22700100, Long.-119.45159900, which expressed approximately unknown volume of water, creating a sink hole within Section 13 T31S/R23E in the Elk Hills Oilfield. The closest active injection well in the area at the time of the surface expression was Well 77WD-13B – Water Disposal Well operated by CRC. **This surface expression is a violation of CCR section 1724.11, subdivision (a).** That states "underground injection projects shall not result in any surface expression" **and CCR section 1724.7 subdivision (a)** that states in part "injected fluid will be confined to the approved injection zone and that the underground injection project will not cause damage to life, health, property, or natural resources"

All surface expressions are violations and CRC must stop the continued flow of all expressions and work to ensure the absence of reoccurrences. As such, the State Oil and Gas Supervisor requires CRC to perform the following required actions to begin to address the occurrence of the surface expressions at the "Section 13" lease at 35.22700100, -119.45159900 within Section 22 T32S/R23E in the Elk Hills Oilfield:

1. Meet with CalGEM within 14 days of the date of this letter to present a root cause analysis of the surface expression, diagnostic testing performed, and corrective actions taken to prevent future surface expressions.

2. Per CCR section 1724.11 subdivision (d), immediately implement a minimum 150 feet steam restriction radius around the June 10, 2022, surface expression. If the surface expression continues to flow for more than five days, then the operator shall immediately implement a minimum 600 feet steam restriction radius around the surface expression. Furthermore, per CCR section 1724.11 subdivision (d), if the surface expression(s) continue to flow for more than 10 days, then the Division has the authority to expand the radius around the surface expression within which injection shall cease. The Division will determine the expanded radius based on consideration of the flow rate of the surface expression, geologic factors, and operational parameters.
3. Place prominent "Danger" or "Warnings" near (as safety dictates) the surface expression and restrict access to the area until the surface expression has stopped flowing and the area deemed safe for reentry by a professional engineer licensed under Chapter 7 of Division 3 of the California Business and Professions Code, as per CCR section 1724.11 subdivision (i).
4. Incorporate the "Section 13" lease (35.22700100, -119.45159900) event within a Surface Expression Monitoring & Prevention Plan, for review and approval by the Division by July 10, 2022. At a minimum, per CCR section 1724.11 subdivision (b)(1), the plan shall include the following:
 - (A) A subsurface injection-production mass balancing surveillance system utilizing a continuous tilt meter array or other ground monitoring system approved by the Division; or implementation of a real-time pressure/flow monitoring system that will give adequate warning to prevent surface expressions.
 - (B) A map of the project area with all surface expressions, including cracks, fissures, and sink holes related to underground injection, and containment measures prominently marked. A current map of these features shall be provided to the Division and shall be updated as these features are discovered, installed, or changed.
 - (C) Protocols for restriction of access to areas where there are surface expressions or surface expression containment measures.
 - (D) Training, including safety measures and identification of possible hazards, for field personnel working in areas where there are surface expressions or where surface expressions may occur.

As indicated above, the occurrence of a surface expression is a violation of CCR section 1724.11, subdivision (a). In addition to any civil penalties that may issue for the occurrences of surface expressions since this prohibition went into effect on April 1, 2019, failure to follow the above requirements, and remedy the current ongoing violations, may result in an additional Notice of Violation and/or enforcement actions. Such enforcement actions could include the issuance of a civil penalty and/or a remedial work order pursuant to PRC sections 3236.5 and/or 3224, respectively.

If you have any questions, please call the District Deputy, Mark Ghann-Amoah at (661) 322-4031.

Sincerely,

Mark Ghann-Amoah

Mark Ghann-Amoah
District Deputy, Inland District

Adaku Adeleye

Adaku Adeleye
Supervising Oil and Gas Engineer

Location of the Surface Expression (SE)

CRC Section 13 Elk Hills SE Sink Hole 06-10-2022 (35.22700100, -119.45159900)

