

**EXHIBIT B-7**

**Statement of Basis for Draft Decision**

West Bay Exploration Company (WBEC), Haystead #9 SWD  
(Permit #MI-079-2D-0010)

**Administrative Record  
Item # 26**

March 27, 2013

Lisa Perenchio, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

**STATEMENT OF BASIS FOR ISSUANCE OF UNDERGROUND INJECTION  
CONTROL (UIC) PERMIT**

**Permit Number:** MI-075-2D-0010

**Facility Name:** Haystead #9 SWD

West Bay Exploration Company of Traverse City, Michigan, has applied for a United States Environmental Protection Agency (USEPA) permit for the Haystead #9 SWD injection well to be used for noncommercial brine disposal in Jackson County, Michigan.

Review of the permit application indicates that no significant environmental impact should result from the proposed injection. The USEPA, therefore, intends to issue a permit for this well. Under the authority of Title 40 of the Code of Federal Regulations (40 CFR) Parts 144 and 146, USEPA permits must specify conditions for construction, operation, monitoring, reporting, and plugging and abandonment of injection wells so as to prevent the movement of fluids into any Underground Source of Drinking Water (USDW). General provisions for USEPA UIC permit requirements are found at 40 CFR Parts 144 and 146, while regulations specific to Michigan injection operations are found at 40 CFR Part 147 Subpart X. In accordance with 40 CFR § 124.7, general information and highlighted permit conditions specific to this well are as follows:

**Area of Review (AOR) and Corrective Action:** In accordance with 40 CFR §§ 144.55, 146.6 and 146.7, this is the area surrounding the well within which the applicant must research wells which penetrate the injection zone. If any of these wells are improperly sealed, completed or abandoned, and might provide a conduit for fluid migration, the applicant must develop a corrective action plan as shown in Attachment C of the permit to address the deficiency. The applicant has provided documentation on the well population within 1/4 mile of the injection well (i.e., the AOR). There are 2 producing, 0 injection, 0 temporarily abandoned, and 0 plugged and abandoned wells within the 1/4 mile radius AOR which penetrate the injection zone.

**Underground Sources of Drinking Water (USDWs):** USDWs are defined by the UIC regulations as aquifers or portions thereof which contain less than 10,000 milligrams per liter of total dissolved solids and which are being or could be used as a source of drinking water. The base of the lowermost possible USDW in the vicinity of the injection well has been identified at approximately 217 feet below ground surface. This water-bearing formation is the Marshall Sandstone.

**Injection and Confining Zone:** Injection for noncommercial brine disposal is limited by the permit to the Niagaran in the interval between 2870 and 3100 feet below ground surface. This injection zone is separated from the lowermost USDW by approximately 2653 feet of rock strata.

**Construction Requirements:** The proposed construction of the injection well meets the regulatory criteria of 40 CFR § 146.22. This requires that all new wells which inject fluids which are brought to the surface in connection with oil or natural gas production, or for enhanced recovery of oil or natural gas, be sited so that they inject into a formation which is separated from any USDW by a confining zone free of known open faults or fractures within the AOR. All Class II wells must also be cased and cemented to prevent the movement of fluids into or between USDWs. The permittee shall not commence construction, including drilling, of any new well until a final permit has been issued.

**Injection Fluid:** The injected fluid is limited by the permit to produced brine. The expected maximum daily volume of fluid to be injected is 1200 barrels.

**Maximum Injection Pressure:** The maximum injection pressure shall be limited to 737 pounds per square inch gauge (psig). This limitation will ensure that the pressure during injection does not initiate fractures in the confining zone adjacent to the lowermost USDW during injection operations. This in turn ensures that the injection pressure will not cause the movement of injection or formation fluids into a USDW as prohibited by 40 CFR § 146.23(a)(1).

**Monitoring and Reporting Requirements:** In accordance with 40 CFR §§ 144.54 and 146.23, the applicant will be responsible for observing and recording injection pressure, flow rate, annulus pressure, and cumulative volume on a weekly basis and reporting this to the USEPA on a monthly basis. The applicant will also be responsible for observing, recording and reporting annulus liquid loss on a quarterly basis. An analysis of the injected fluid must be submitted on an annual basis. In addition, the applicant is required to conduct and pass a two-part Mechanical Integrity Test (MIT), in accordance with 40 CFR § 146.8, before authorization to inject is granted, and after the well is completed. The applicant is also required to repeat the annulus pressure test, which is the first part of the MIT, at least once every five (5) years thereafter. If a temperature or noise log or another method as approved by the Director is used to determine the second part of the MIT (i.e., the absence of fluid movement), then the applicant will be required to repeat this test at least once every five (5) years thereafter. These tests will provide USEPA with an evaluation of the integrity of the tubular goods (casing, tubing and packer) as well as documentation as to the absence or presence of fluid movement behind the casing.

**Plugging and Abandonment:** In accordance with 40 CFR §§ 146.10 and 146.24(d), the permit includes a plugging and abandonment plan for an environmentally protective well closure at the time of cessation of operations. West Bay Exploration Company has demonstrated adequate financial responsibilities to close, plug, and abandon this underground injection operation. A state bond in the amount of \$25000 has been established for this purpose with Fidelity and Deposit Company of Maryland.

**Issuance and Effective Date of Permit:** In accordance with 40 CFR § 124.15, the permit will become effective immediately upon issuance if no public comments were received that requested a change in the draft permit. However, in the event that public comments are received that requested a change in the draft permit then the permit will become effective thirty (30) days after the date of issuance unless the permit is appealed. In accordance with 40 CFR § 144.36(a), the permit will be in effect for the life of the facility, unless it is otherwise modified, revoked and reissued, or terminated as provided at 40 CFR §§ 144.39, 144.40 and 144.41. The permit will expire in one (1) year if the permittee fails to commence construction, unless a written request for an extension of this one (1) year period has been approved by the Director. The permit will be reviewed by the USEPA at least once every five (5) years from its effective date for consistency with new or revised Federal regulations.

Questions, comments and requests for additional information or for a public hearing may be submitted in writing to the contact person listed below or made verbally to Timothy Elkins at (312) 886-0263 or [elkins.timothy@epa.gov](mailto:elkins.timothy@epa.gov) via the internet. The public comment period on this permitting action will close thirty (30) days after the date of the public notice. If the USEPA receives written comments indicative of public interest that warrants a hearing on this action, a public notice of a scheduled hearing will be published locally and mailed to interested parties.

To preserve your right to appeal any final permit decision that may be made in this matter under 40 CFR Part 124, you must either participate in the public hearing or send in written comments on the draft permit decision. The first appeal must be made to the Environmental Appeals Board; only after all agency review procedures have been exhausted may you file an action in the appropriate Circuit Court of Appeals for review.

**U.S. Environmental Protection Agency  
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**Attn: Lisa Perenchio, Chief  
Direct Implementation Section**



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Direct Implementation Section**