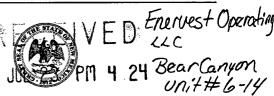
NSL TYPE

PKVR0820652333

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau - 1220 South St. Francis Drive, Santa Fe, NM 87505 2008



	4	administrative <i>i</i>	APPLICATION CHECKLIST
TI	HIS CHECKLIST IS MA		APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS ING AT THE DIVISION LEVEL IN SANTA FE
Appli	[DHC-Down [PC-Pool	ndard Location] [NSP-Non-Sta hole Commingling] [CTB-Le ol Commingling] [OLS - Off-L [WFX-Waterflood Expansion] [SWD-Salt Water Disposal	ndard Proration Unit] [SD-Simultaneous Dedication] ase Commingling] [PLC-Pool/Lease Commingling] .ease Storage] [OLM-Off-Lease Measurement] [PMX-Pressure Maintenance Expansion] [] [IPI-Injection Pressure Increase] ertification] [PPR-Positive Production Response]
[1]	TYPE OF AP	PLICATION - Check Those W	Which Apply for [A]
L-J	[A]	Location - Spacing Unit - Sim NSL NSP SI	nultaneous Dedication
	Check [B]	One Only for [B] or [C] Commingling - Storage - Mea DHC CTB P	
	[C]		e Increase - Enhanced Oil Recovery WD
	[D]	Other: Specify	
[2]	NOTIFICAT: [A]	-	Those Which Apply, or Does Not Apply rriding Royalty Interest Owners
	[B]	Offset Operators, Leaseh	olders or Surface Owner
	[C]	Application is One Which	n Requires Published Legal Notice
	[D]	Notification and/or Concu.s. Bureau of Land Management - Co	urrent Approval by BLM or SLO ummissioner of Public Lands, State Land Office
	[E]	For all of the above, Proo	of of Notification or Publication is Attached, and/or,
	[F]	☐ Waivers are Attached	
[3]		CURATE AND COMPLETE ATION INDICATED ABOVE	INFORMATION REQUIRED TO PROCESS THE TYPE
	oval is <mark>accurate</mark> a	nd complete to the best of my k	information submitted with this application for administrative mowledge. I also understand that no action will be taken on this tions are submitted to the Division.
	Note:	Statement must be completed by an	individual with managerial and/or supervisory capacity.
	nie L. Young or Type Name	Signature /	Coordinator, Regulatory Compliance Title
		7/22/08 Date	RYOUNG@ENERVEST.NET E-Mail Address

Hand Delivered

New Mexico Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, New Mexico 87505

Attention: Mr. Mark E. Fesmire, P.E.

Director

Re: Unorthodox Well Location

Bear Canyon Unit No. 6-14

Surface Location: 350' FNL & 665' FWL (Unit D) Gallup Entry Point: 416' FNL & 761' FWL (Unit D) Bottomhole Location: 2250 FSL & 790' FEL (Unit I) All in Section 14, T-26 North, R-2 West, NMPM,

Rio Arriba County, New Mexico

Dear Mr. Fesmire:

Pursuant to Division Rule 104.F(2), EnerVest Operating, L.L.C., ("EnerVest") is seeking administrative approval of an unorthodox oil well location in the Gavilan-Mancos Pool (Oil -27194) for its proposed Bear Canyon Unit Well No. 6-14, which is to be horizontally drilled in the following manner:

A vertical hole will be drilled at an unorthodox surface location 350 feet from the North line and 665 feet from the West line (Unit D) of Section 14, Township 26 North, Range 2 West, NMPM, to a depth of approximately 6,800°. A short radius curve will then be drilled in a southeast direction so as to penetrate the Gallup formation at a true vertical depth of 7,346 feet, and at an unorthodox penetration point 416 feet from the North line and 761 feet from the West line (Unit D) of Section 14. The well will then be drilled a distance of approximately 4,553 feet horizontally through the Gallup formation to a standard bottomhole location 2250 feet from the South line and 790 feet from the East line (Unit I) of Section 14.

An existing 640-acre spacing and proration unit comprising all of Section 14 is to be dedicated to the proposed well. This unit is currently dedicated to EnerVest's Bear Canyon Unit No. 8, which is located at a standard location 1750 feet from the South line and 1800 feet from the West line (Unit K) of Section 14.

The well is located within the Gavilan-Mancos Pool. This pool is currently governed by special pool rules established by Division Order No. R-7407, as amended, dated December 20, 1983. These pool rules require standard 640-acre spacing and proration units and designated well locations such that each well shall be located no closer than 790 feet to the outer boundary of the unit, nor closer than 330 feet to any quarter-quarter section line or subdivision inner boundary. The pool rules also allow the drilling of a second well on a standard unit provided that the infill well is not located in the same quarter section as the parent well, or closer than 1,650 feet from the parent well.

The proposed unorthodox location is necessitated by a combination of topographic, geologic and engineering factors, described as follows:

The location and horizontal orientation of the Bear Canyon Unit No. 6-14 within Section 14 was designed in order to intersect northeast-southwest trending fractures within the Gallup formation. The presence of these fractures in the Gallup formation is well documented by numerous published San Juan Basin geologic studies, as well as geologic testimony presented by industry geologists before the New Mexico Oil Conservation Commission (see Case No. 7980);

The well has been staked at the proposed surface location at the request of the surface owner in order to minimize disturbance to ranching operations in this area. Due to surface use and the presence of archaeological sites to the north and south, the proposed location represents the only viable surface location within the NW/4 NW/4 of Section 14;

In order to penetrate the Gallup formation at a standard location within the NW/4 NW/4 of Section 14 from the currently proposed surface location, it will be necessary to alter the proposed drilling program to:

- a) drill a deviated hole (19 degrees) from a depth of 4,000' (the current setting depth of the 9 5/8" casing) to a depth of 6,800 feet. At that point, a short radius curve would then be drilled to penetrate the Gallup formation at a true vertical depth of 7,346 feet, and at a standard penetration point; or
- b) change the azimuth of the wellbore to 165 degrees instead of 124 degrees. At the point the Gallup formation is penetrated, the well would then be turned back to 124 degrees resulting in a severe "dogleg".

By implementing a change in the drilling program as described above, the complexity of the drilling program and the associated costs increase significantly. In addition, by first drilling a deviated hole prior to drilling the lateral, issues regarding hole cleaning, torque and drag become significant, as does the complexity of running production equipment in the wellbore. Due to the long length of the lateral, it will be advantageous to keep the upper portion of the hole as simple as possible.

By utilizing the currently proposed drilling plan, a minimum horizontal separation of 1,940 feet will be maintained between the Bear Canyon Unit Wells No. 8 and 6-14.

The Bear Canyon Unit No. 6-14 is located within the Bear Canyon Unit. This federal exploratory unit, which currently comprises the S/2 of Section 3 and all of Sections 10, 11, 14 and 15, was approved by Division Order No. R-8350 dated November 12, 1986. While EnerVest is the operator of the unit, not all interest owners have agreed to participate in unit operations. As a result, Section 14 is being developed pursuant to a communitization agreement. Consequently, the interest ownership between Section 14 and the affected offset acreage, being Sections 10, 11 and 15, is not common. Affected Sections 10, 11 and 15 are currently being developed in the Gavilan-Mancos Pool as follows:

EnerVest Operating, L.L.C.	Bear Canyon Unit No. 2	API No. 30-039-24190 880' FNL & 2280' FWL Unit C, Section 10
EnerVest Operating, L.L.C.	Bear Canyon Unit No. 3	API No. 30-039-24192 1820' FSL & 970' FWL Unit L, Section 11
EnerVest Operating, L.L.C.	Bear Canyon Unit No. 1	API No. 30-039-24123 1680' FNL & 1780' FEL Unit G, Section 15

In addition, the Bear Canyon Unit Well No. 9 (API No. 30-039-25614), located 2201 feet from the South line and 2059 feet from the East line (Unit J) of Section 10, which was drilled by M.W. Petroleum Corporation in 1997 to test the Gavilan-Mancos Pool, tested dry in that interval and was subsequently plugged and abandoned.

EnerVest believes that the location of the Bear Canyon Unit Wells No. 1 and 3 will adequately protect Sections 15 and 11 from offset drainage, and that the drilling of the Bear Canyon Unit No. 9 demonstrates that no hydrocarbons are present in the Gallup formation underlying the potentially affected area in Section 10. Consequently, the

correlative rights of the interest owners in Sections 10, 11 and 15 will not be violated by approval of this application.

Pursuant to Division Rule No. 19.15.14.1210 A(2), notice of this application is being provided to all working interest owners within affected offsetting Sections 10, 11 and 15, Township 26 North, Range 2 West. All working interest owners in the affected offsetting Section 10, 11 and 15 also own an interest in Section 14, and all have been provided the opportunity to participate in the drilling of the Bear Canyon Unit No. 6-14. A list of these interest owners is provided as Attachment No. (3).

Also enclosed and identified as Attachment 1 is a Form C-102 for the Bear Canyon Unit No. 6-14, and a plat identified as Attachment 2 that shows the subject proration unit and all affected offsetting proration units and wells.

In summary, approval of the application will provide EnerVest the opportunity to economically drill the proposed Bear Canyon Unit No. 6-14 to develop the oil and gas reserves in the Gavilan-Mancos Pool underlying Section 14, Township 26 North, Range 2 West, NMPM, thereby preventing waste, and will not violate correlative rights.

If you should have any questions, please call me at (713) 495-6530.

Sincerely,

Ronnie L. Young

Coordinator, Regulatory Compliance

EnerVest Operating, L.L.C.

Xc: Bureau of Land Management-Farmington

OCD-Aztec District Office

DISTRICT I 1625 N. French Dr., Hobbs, N.M. 86240

DISTRICT II 1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV 1220 South St. Francis Dr., Santa Fe, NM 87505 State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	²Pool Code	⁵ Pool Name
Property Code	[‡] Property Name	' Yell Number
	BEAR CANYON U	NT 6-14
OGRID No.	⁶ Operator Name	⁶ Elevation
	ENERVEST OPERATING	, LLC 7384'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	County
D	14	26-N	2-W		350	NORTH	565	WEST	RIO ARRIBA

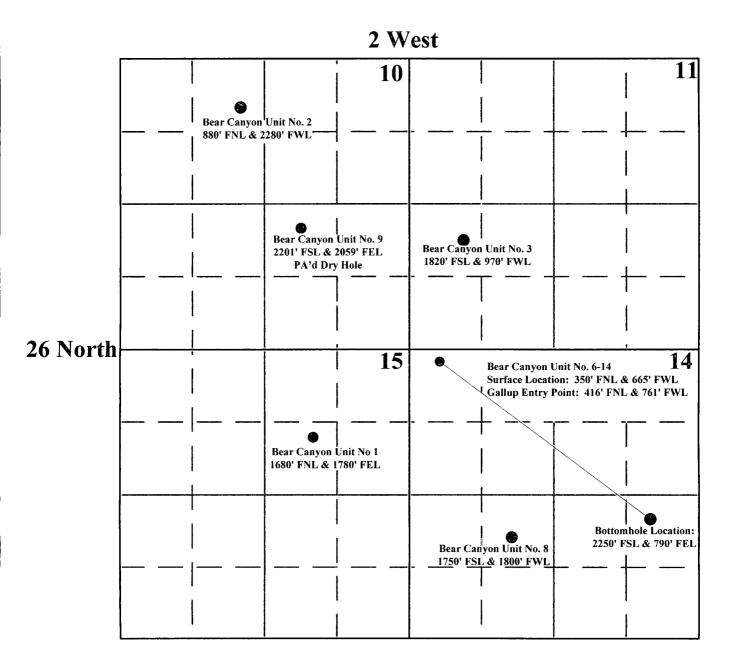
11 Bottom Hole Location If Different From Surface

BOWOM HOLE BOUNDED I DIFFERENCE FOR BUILDING									
UL or lot no.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	County
	14	26-N	2-W		2250	SOUTH	790	EAST	RIO ARRIBA
12 Dedicated Acres			¹³ Joint or	Infill	¹⁴ Consolidation C	ode	¹ºOrder No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

16	OR A NON-STAND	ARD UNIT HAS B	EEN APPROVED BY	THE DIVISION
665' FD. 2 1/2' BC. 1916 G.L.O.	2633.00° (M)	ET P&C 5 No. 8894 3.40908" N. (NAD '34.57144" W. (NA	SET PACC LS NO. 8994 1/2" REBAR ON CALC'D DSL PROP. 83)	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a workin interest or unleased mineral interest in the land including the proposed bottom hale location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division
N 00'00'13" E 2640.48' (M)	s	S4.51.45.	м 00'01'30" W 5283.78' (С)	Signature Date Printed Name
FD. 2 1/2* BC. 1915 G.L.O. LAT: 36*29*01.87 LONG: 107*00*47.88.	BOTTOM HOLE: 843" N. (NAD 83) 306" W. (NAD 83)		790' B.H.L.	18 SURVEYOR CERTIFICATION I horeby certify that the well location chown on this pla was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.
	PRELIMINARY B.H.L. DTAGES ARE APPROXIMATE VERVEST OPERATING, LLC CLIENT FD. 2 1/2* BC.	 	CALC'D CORNER FROM W.C. 00'01" W-19.8" TINESS CORNER FD. 2 1/2" BC. 1916 G.L.O.	Date of Survey Semilure and Seal of Professional Surveyor: Certificate Number

EnerVest Operating, L.L.C.
Application for Unorthodox Well Location
Bear Canyon Unit No. 6-14
Gavilan-Mancos Pool



Adjoining Spacing Units & Well Identification

Attachment 2

<u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

TO: AFFECTED INTEREST OWNERS AND/OR OFFSET OPERATORS

Re: EnerVest Operating, L.L.C.

Application for Unorthodox Well Location

Bear Canyon Unit No. 6-14

Surface Location: 350' FNL & 665' FWL Gallup Entry Point: 416' FNL & 761' FWL Bottomhole Location: 2250' FSL & 790' FEL

Gavilan-Mancos Pool (27194)

Section 14, T-26 North, R-2 West, NMPM,

Rio Arriba County, New Mexico

Ladies and Gentlemen:

Enclosed please find a copy of the application filed by EnerVest Operating, L.L.C. for authorization to drill its Bear Canyon Unit Well No. 6-14 horizontally from an unorthodox surface location 350 feet from the North line and 665 feet from the West line (Unit D), penetrate the Gallup formation at an unorthodox penetration point 416 feet from the North line and 761 feet from the West line (Unit D) and drill horizontally a distance of approximately 4,553 feet to a standard bottomhole location 2250 feet from the South line and 790 feet from the East line (Unit I) of Section 14, Township 26 North, Range 2 West, NMPM, Rio Arriba County, New Mexico. An existing 640-acre spacing and proration unit comprising all of Section 14 is to be dedicated to the well in the Gavilan-Mancos Pool. This unit is currently dedicated to EnerVest Operating, L.L.C.'s Bear Canyon Unit No. 8 located in Unit K of Section 14.

As the owner of an interest that may be affected by the proposed unorthodox location, you are being provided notice as per Division rules and regulations. Objections must be filed in writing at the Division's Santa Fe office within 20 days from the date this notice was sent to you. If no objection is received within twenty days after the filing of this application and proof of notice with the Division, the application may be approved.

If you should have any questions, please call me at (713) 495-6530.

Sincerely,

Ronnie L. Young

Coordinator, Regulatory Compliance

EnerVest Operating, L.L.C.

1001 Fannin Street

Suite 800

Houston, Texas 77002-6707

Enclosure

EnerVest Operating, L.L.C. Application for Unorthodox Well Location Bear Canyon Unit No. 6-14 Gavilan-Mancos Pool

Offset Working Interest Owner Notification List Sections 10, 11 & 15, T-26 North, R-2 West, NMPM*

Jennifer Roberts Beason P.O. Box 6449 Shreveport, LA 71136-6449

Energen Resources Corporation 605 Richard Arrington Blvd. N. Birmingham, AL 35203-2707

Roberts and Murphy, Inc. Roberts Center P.O. Box 7125 Shreveport, LA 71137-7125

San Juan Basin Properties, LLC 1499 Blake Street 10C Denver, Colorado 80202

*Working interest ownership within Sections 10, 11 and 15, T-26N, R-2W is common.

