(August 1999)       UNITED STATES       OMB No. 1004-0136         DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT       070 Farmington, NM       5. Lease Serial No.         APPLICATION FOR PERMIT TO DRILL OR REENTER       070 Farmington, NM       5. Lease Serial No.         APPLICATION FOR PERMIT TO DRILL OR REENTER       070 Farmington, NM       5. Lease Serial No.         1a, Type of Well:       Oil Well       Q Gas Well       Other       Single Zone       Multiple Zone         2. Name of Operator       Single Zone       Multiple Zone       9. API Well No.       Angel Peak 9 #10S         3A. Address       3b. Phone No. (include of se code)       10. Field and Pool, or Exploratory       E Basin Fruitland Coal         4. Location of Well (Report location clearly and in accordance with any State regulterients. *)       0C7 2003       Sec. 9, T27N, R10W         14. Distance in miles and direction from nearest town or post office*       10. No. of Actes in lease       17. Spacing Unit dedicated to this well         15. Distance in miles and direction from nearest town or post office*       16. No. of Actes in lease       17. Spacing Unit dedicated to this well         15. Distance in miles and direction from nearest town or post office*       16. No. of Actes in lease       17. Spacing Unit dedicated to this well         15. Distance from proposed pretor of lease in the set of the sum of the set of the sum tine, if any)       660°			
Farm 3166-3 Augus 1999)       UNITED STATES       DEP ARTIMENT OF THE INTERIOR DEPARTMENT OF THE INTERIOR OTO FAITDINGION, NM       State 200       State	, <b>v</b> .	RECEIVED	
APPLICATION FOR PERMIT TO DRILL OR REENTER     APPLICATION FOR PERMIT TO DRILL OR REENTER     Appled Varie A provide provided and the provided of the pro	Form 3160-3 (August 1999)	2003 JUN - 5 PM 3: 05	OMB No. 1004-0136
APPLICATION FOR PERMIT TO DRILL OR REENTER       7. If Unit or CA Agreement, Name and No.         326 88       326 88         8. Type of Work:       O BILL         9. Type of Work:       O BILL         9. Type of Well:       O Well:         0       Well:         10       Well:         10       Well:         11       Bestance mompton.         12       County of Call and Source or partition of Well (Report location clarly and in accordance with any State requiption of the source of a sum of the source of the		RIOR 070 Farmington, NM	
Type of Welk:         DRUL         Difference         Type of Welk:         Difference         Difference         Type of Welk:         Difference         Difference         Support         Support         Kukui Operating Company         Support         Support         Kukui Operating Company         Support         Kukui Operating Company         Support         Support         Kukui Operating Company         Support         Support	APPLICATION FOR PERMIT TO DRILL	OR REENTER	6. If Indian, Allottee or Tribe Name
8. Type of Well: Oil Well Other Single Zone Multiple Zone   8. Lease Name and Well No.   Angel Peak 9 #10S   9. Any Well No.   3. Addres B. Phone No. (Include gifter cidel)   10. Field Peak 9 #10S   11. Sec. 7, R. M., or Dik, and Survey or Ar   12. Sec. 9, T27N, R10W   13. State   14. Distance in miles and direction from nearest town or post office*   15. Distance from proposed Point Contine Clearly and in accordance with any State requirements.   14. Distance in miles and direction from nearest town or post office*   15. Distance from proposed Point Contine Clearly and in accordance with any State requirements.   16. Distance from proposed Point Contine Clearly and in accordance with any State requirements.   15. Distance from proposed Point Contine Clearly and in accordance with any State requirements.   16. Distance from proposed Point Contine*   17. Specing Unit dedicated to this well proposed Point Contine*   18. Distance from proposed Point Contine*   19. Distance from proposed Point Contine*   10. Researce well, diffic accompleted, applet of (no his lise 2s, f. f. f. for)   19. Distance from this lase, f. f. for)   21. Elevations (Show whether DF, KDB, RT, GL, etc.)   22. Approximate date work will start*   23. Starter from this lase, f. f. for)   24. Attachments   The following, completed in accordance with the requirements of Onshore Oil and Clear No. 1, shall be attached to this form:   19. Well plat certified by a registered surveyor.   24. Attachments   <	19. Type of Work: X DRILL REENTER		
Kukui Operating Company       30.045-3/35         3A. Address       3b. Phone No. (include gree code)       10. Field and Pool, or Exploratory         60 Waish Engineering.7415 E. Main, Farmington, NM 87402       (505) 327-4892       10. Field and Pool, or Exploratory         4. Location of Well (Report location clearly and in accordance with any State requirements." OCT 2003       11. Sec. T, R, M, or Bik, and Survey or Ar         At surface       1600° FNL       Sec. 9, T27N, R10W         14. Distance in miles and direction from nearest two or post office*       12. County or Pariah       13. State         15. Distance in miles and direction from nearest two or post office*       12. County or Pariah       13. State         15. Distance in miles and direction from proposed from the effect property or lease in e., the effect and the interview of the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease in e., the effect and the effect property or lease effect informatin end/or plans as may be required by the authorized offi	D. Type of Well: Oil Well X Gas Well Other	X Single Zone 🔲 Multiple Zone	8. Lease Name and Well No. Angel Peak 9 #10S
cice Watch Engineering,7415 E. Main, Parmington, NM 87402       (505) \$27-4832       E Basin Fruitland Coal         4. Location of Well (Report location clearly and in accordance with any State regularization of CP 2003       11. Sec. T, R., M., or Biks, and Survey or Ar         A surface       1600 FNL and 660' FWL       Sec. 9, T27N, R10W         14. Distance from proposed       10. miles southeast of Bicomfield, NM       12. County or Parish       13. State         15. Distance from proposed       660'       16. No. of Adies in lease       17. Spacing Unit dedicated to this well       NM         15. Distance from proposed       660'       10. No. of Adies in lease       17. Spacing Unit dedicated to this well       NM         16. Distance from proposed       660'       22. Approximate date work will start*       23. Estimated duration       NM         17. Distance from proposed Count       6038' GL       19. Proposed Depth       20. BLM/BIA Bond No. on file       23. Estimated duration         18. Distance from proposed Count       6038' GL       24. Attachments       1       1       1       1         21. Elevations (Show whether PF, KDB, RT, GL, etc.)       22. Approximate date work will start*       23. Estimated duration       1       1       1         23. A Surface Use Plan (ff the location is on National Forest System Lands, th       SUPO shall be filed with the appropriate Forest Service Office. <td>2. Name of Operator Kukui Operating Compa</td> <td>ny</td> <td></td>	2. Name of Operator Kukui Operating Compa	ny	
Air proposed prod. Zone       Sec. 9, 12/N, R10W         14. Distance in miles and direction from nearest town or post office*       12. County or Parish         15. Distance from proposed*       13. State         16. No. of Acres in lease       17. Spacing Unit dedicated to this well         17. State from proposed reases from proposed county or Parish       16. No. of Acres in lease       17. Spacing Unit dedicated to this well         17. Distance from proposed county or Parish       660'       320+       320 acres W/2         18. Distance from proposed county or Parish       19. Proposed Depth       20. BLM/BIA Bond No. on file         21. Elevations (show whether DF, KDB, RT, GL, etc.)       22. Approximate date work will start*       23. Estimated duration         19. Well plat certified by a registered surveyor.       24. Attachments       1       1         19. Well plat certified by a registered surveyor.       4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).       5. Operator certification.         23. Signature       Name (Printed/Typed)       Date         24. Distance form proposed Depth       20         25. Signature       Name (Printed/Typed)       Date         7. Magnet Use proved by (Signature)       Name (Printed/Typed)       Date         7. Title       Ya/David J. MarekiewiCZ       Office       SEP	c/o Walsh Engineering,7415 E. Main, Farmington, NM 87402	(505) 327-4892	E Basin Fruitland Coal
10 miles southeast of Bloomfield NM       San Juan       NM         15. Distance from proposed from the result on the result on the result on the result on the result of the resul	At surface 1600' FNL and 660' FWL At proposed prod. Zone	EC OCT 2003 -	Sec. 9, T27N, R10W
property or lease life, f. (Also to nearest drig, unit line, if any)       660'       320 +       320 acres W/2         18. Distance from proposed location* on nearest will, drilling, completed, applied for, on this lease, ft       750'       19. Proposed Depth 2100' +/-       20. BLM/BIA Bond No. on file         21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6038' GL       22. Approximate date work will start*       23. Estimated duration         21. Elevations (Show whether DF, KDB, RT, GL, etc.)       22. Approximate date work will start*       23. Estimated duration         21. Elevations (Show whether DF, KDB, RT, GL, etc.)       22. Approximate date work will start*       23. Estimated duration         21. Elevations (Show whether DF, KDB, RT, GL, etc.)       22. Approximate date work will start*       23. Estimated duration         21. Well plat certified by a registered surveyor.       24. Attachments       14. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).       5. Operator certification.         3. Marace Use Plan (if the location is on National Forest System Lands, th SUPO shall be filed with the appropriate Forest Service Office.       5. Operator certification.       5. Up other site specific information and/or plans as may be required by the authorized office.         25. Signature       Name (Printed/Typed)       Date         Approved by (Signature)       Name (Printed/Typed)       Date         Title       fst / David J. Marrikiewic2	14. Distance in miles and direction from nearest town or post office* 10 miles southeast of Bloomfi		
6038' GL       July 1, 2003       1 week         24. Attachments         The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:         1. Well plat certified by a registered surveyor.       4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).         3. A Drilling Plan.       5. Operator certification.         3. A Surface Use Plan (if the location is on National Forest System Lands, th SUPO shall be filed with the appropriate Forest Service Office.       6. Such other site specific information and/or plans as may be required by the authorized office.         25. Signature       Name (Printed/Typed)       Date         Paul C. Thompson, P.E.         Agent         Approved by (Signature)         Title       /// David J. Marrkiewicz         Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to con operations of approval, if any, are attached.         Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United	(Also to nearest drig, unit line, if any) 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 750'	poposed Depth 20. BLM/BIA Bond 2100' +/-	d No. on file
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Taul C. Thompson, P.E.       6/5/03         Title       Agent         Approved by (Signature)       Name (Printed/Typed)         Title       /g/ David J. Marikiewicz         Office       SEP         Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to comoperations thereon.         Conditions of approval, if any, are attached.         Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United	<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System Lands, the</li> </ol>	<ol> <li>Bond to cover the operations un Item 20 above).</li> <li>Operator certification.</li> <li>Such other site specific information</li> </ol>	nless covered by an existing bond on file (see
Agent         Approved by (Signature)       Name (Printed/Typed)         Title       Image: Second secon	25. Signature Paul G Thank		
Approved by (Signature)       Name (Printed/Typed)         Title       /g/ David J. Martkiewicz         Office       SEP         Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to con operations thereon.         Conditions of approval, if any, are attached.         Title 18 U.S.C. Section 1001and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United	Title	• ····· • • ····	
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	operations thereon.	al or equitable title to those rights in the subject	

DRULING OPERATIONS AUTHORIZED ADE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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NMOCD

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4



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## Kukui Operating Company OPERATIONS PLAN Angel Peak 9 #10S

I. Location: 1600' FNL & 660' FWL Sec 9 T27N R10W San Juan County, NM Date: June 5, 2003

Elev: GL 6038'

Field: Basin Fruitland Coal Surface: BLM Minerals: SF - 077382

II. Geology: Surface formation \_ Nacimiento

Α.	Formation Tops	Depths
	Ojo Alamo	900'
	Kirtland	1060′
	Fruitland	1625'
	Pictured Cliffs	1925'
	Total Depth	2100'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 1625'and 1925'.

B. Logging Program: Induction/GR and neutron/density logs at TD.

C. No over pressured zones are expected in this well. No  $H_2S$  zones will be penetrated in this well. Max. BHP = 500 psig.

## III. Drilling

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A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibits (#1 and #2) for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nippleup and after any use under pressure to 1000 psi.

Angel Peak 9 #10S Operations Plan Pg #2

C. Cont.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# K-55
6-1/4"	2100'	4-1/2"	10.5# K-55

B. Float Equipment:

a) Surface Casing: None

b) Production Casing: 4-1/2" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers every other joint from the top of the well.

V. Cementing:

Surface casing: 7" - Use 30 sx (36 cu. ft.) of Cl "B" with 2%  $CaCl_2$  (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: 4-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. Lead with 155x (319 cu.ft) of Cl "B" with 2% SMS, ¼#/sk. celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). Tail with 100 sx (118 cu.ft.) of Cl "B" with 2% CaCl<sub>2</sub>, and ¼#/sk. celloflake/sk. (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG) Total cement volume is 437 cu.ft. (100% excess to circulate cement to surface).

/hongs-

Paul C. Thompson, P.E.