- `i	• Form 3160-3 (August 1999) UNITED,S		FORM APP OMB No. 10 Expires Novem	04-0136		
	DEPARTMENT ÓF BUREAU OF LAND	MANAGEMENT	5. Lease Serial No. NM-83507			
		6] [] Indian, Allottee or Trib				
	la. Type of Work: 🛛 DRILL 🔲 REENTER	7. If Unit or CA Agreement,	Name and No.			
]/	lb. Type of Well: 🔲 Oil Well 🛛 Gas Well 🔲 G	8. Lease Name and Well No Kaibab Trail (
	2. Name of Operator Contac DUGAN PRODUCTION CORP.	9. API Well No. 30045	31806			
0.4	3a. Address 709 EAST MURRAY DRIVE FARMINGTON, NM 87401	3b. Phone No. (include area code) Ph: 505.325.1821 Fx: 505.327.4613	10. Field and Pool, or Explo Basin Fruitla			
AF	4. Location of Well (Report location clearly and in according At surface SENW 1620' FNL and 18 At proposed prod. zone Same As Above	11. Sec., T., R., M., or Blk. and Survey or Area FSec. 20, T24N, R8W				
	14. Distance in miles and direction from nearest town or pos Four miles north of Nageezi	toffice* Trading Post, New Mexico	12. County or Parish SAN JUAN	13. State NM		
	15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line. if any) 1620'	16. No. of Acres in Lease 1320	17. Spacing Unit dedicated t 320-W/2	o this well		
	 Distance from proposed location to nearest well, drilling completed, applied for, on this lease, ft. 2650 ' 	19. Proposed Depth 1840 '	20. BLM/BIA Bond No. on	ile		
	21. Elevations (Show whether DF, KB, RT, GL. etc. GL-6691'	22. Approximate date work will start 09/20/03	23. Estimated duration 5-DAYS			
	24. Attachments					
	 The following, completed in accordance with the requirements Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Sy SUPO shall be filed with the appropriate Forest Service C 	this form: ons unless covered by an existing bond on file (see formation and/or plans as may be required by the				
	25. Signature Kurt Tagrelin Title	Name (Printed/Typed) KURT FAGRELIUS		Date 07/25/03		
	GEOLOGIST	Name (Printed/Typed)		Data		
	Approved by (Signaturc) /8/ Charlie Beecham Title			^D ÖCT – 7 2003		
		Office				
	Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.					
	Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212. States any false, fictitious or fraudulent statements or represent	make it a crime for any person knowingly and willfully to titions as to any matter within its jurisdiction.	make to any department or age	ncy of the United		
	A water based gel-mud will be Standard 2,000 psi BOP will be Fruitland Coal will be complet will be fractured.	used to drill production casi	ng hole. The			

NMOCD

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

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This action is subject to technical and procedural review pursuant to 43 CFR 3165.8 and appeal pursuant to 43 CFR 3165.4

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EXHIBIT B OPERATIONS PLAN

Kaibab Trail Com #90-S

APPROXIMATE FORMATION TOPS:

Total Depth	1840′
Pictured Cliffs	1691′
Fruitland	1372′
Kirtland	1085′
Ojo Alamo	960 <i>'</i>

Catch samples every 10 feet from 1600 feet to total depth.

LOGGING PROGRAM:

Run cased hole GR-CCL-CNL from total depth to surface.

CASING PROGRAM:

Hole	Casing		Setting	Grade and
Size	Size	Wt./ft.	Depth	Condition
9-7/8″	7″	20#	120'	J-55
6-1/4″	4-1/2"	10.5#	1840′	J-55

Plan to drill a 9-7/8" hole and set 120' of 7" OD, 20#, J-55 surface casing. Then plan to drill a 6-1/4" hole to total depth with gel-water mud program to test the Fruitland Coal. 4-1/2", 10.5#, J-55 production casing will be run and cemented. Cased hole GR-CCL-CNL log will be run. Productive zone will be perforated and fractured. After frac, the well will be cleaned out and production equipment will be installed.

CEMENTING PROGRAM:

Surface: Cement to surface with 70 cf Class B + 2% CaCl₂. Circulate to surface.

Production Stage-Cement with 185 cf 2%lodense with %# celloflake/sx followed by 100 cf Class "B" with %# celloflake/sx. Total cement slurry for production stage is 285 cf Circulate cement to surface.

An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement. An adequate number of casing centralizers will be run through usable water zones to ensure that casing is centralized through these zones. The adequate number of centralizers will be determined based on API standards. Centralizers to impart a swirling action around the casing will be used just below and into the base of the lowest usable water zone. These devices will assist mud displacement, increase cement bonding potential and create an effective hydraulic seal. A chronological log will be kept which records the pump rate, pump pressure, slurry density, and slurry volume for the cement job. The log will be sent to the BLM after completion of the job.

WELLHEAD EQUIPMENT:

Huber 7''x4-1/2'' casing head, 1000# WP, tested to 2000#. Huber 4-1/2''x2-7/8'' tubing head, 1000# WP, tested to 2000#.

BOP and Related Equipment will include for a 2000 psi system: (Exhibit D) Annular preventer, double ram, or 2 rams with one being blind and one being a pipe ram. Kill line (2" minimum) 1 kill line valve (2" minimum) 1 choke line valve 2 chokes Upper kelly cock valve with handle available Safety valve and subs to fit all drill string connections in use. Pressure gauge on choke manifold. 2" minimum choke line. Fill-up line.

Contacts:

Dugan Prod.Corp. Office & Radio Dispatch: 325-1821

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