RECEIVED
NOV 19 '90
O. C. D.
ARTESIA, OFFICE

COMMINGLING DATA FOR THE ALEXANDRE AHX FEDERAL #1

A> Name and Address of the Operator:

Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
ATTN: Brian Collins

B> Lease Name, Well Number, Well Location, Name of the Pools to be commingled:

Alexandre AHX Federal #1
Unit C Sec 33-T19S-R24E
660' FNL and 2105' FWL
Pools: Undesignated

C> A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.

See Attachment A (map)

D> A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone.

See Attachment B

The approximate test rates for each zone are:
Lower Canyon
60 psi on 1/2" choke = 470 MCFPD
Wolfcamp
150 psi on 1/4" choke = 240 MCFPD

E> A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed with in the case of a newly completed or recently completed well which has little or no production history. However, a complete description of treating, testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)

See Attachment B (for completion history)

See Attachment C (for prognostication of future production from each zone)

Best engineering estimate of initial stabilized production rate is 375 MCFPD for the Lower Canyon, and 200 MCFPD for the Wolfcamp.

F> Estimated bottom-hole pressure for each artificially lifted zone. A current (within 30 days) measured bottom-hole pressure for each zone capable of flowing.

Bottom-hole pressure for the Lower Canyon is 3145 psi based on the BHP BU taken on 10-20-90. Bottom-hole pressure for the Wolfcamp is 1910 psi based on the BHP BU taken on 10-30-90.

G> A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.

See Attachment B

Expect dry gas production from each formation with minor amounts of oil and water. Do not anticipate any incompatibility problems.

H> A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.

See Attachment C and D

Prognostication of each formation's reserves indicate that an additional 74,483 MCF of gas will be recovered by commingling production from the Lower Canyon and Wolfcamp (lower economic limit for each formation with commingled production).

I> A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.

Gas: Lower Canyon - $\frac{591,812 \text{ MCF}}{907,445 \text{ MCF}} = 65.22\% \ (65\%)$

Wolfcamp - $\frac{315,633 \text{ MCF}}{907,445 \text{ MCF}} = 34.78\% \ (35\%)$

Oil: Lower Canyon - 100%

Best engineering estimate is that both zones

will decline at same rate (20% /yr). Ratio of each zones' estimated reserves to total reserves for both zones is basis for allocation between zones. Very small amount of oil seen when testing Lower Canyon, none seen when testing Wolfcamp.

J> Economic hardship to Yates Petroleum Corporation will result if the two zones are not commingled and produced simultaneously. Attachment C illustrates the Before Income Tax Discounted Net Cash Flow for commingled production. Attachment D illustrates BFIT DNCF for producing one zone at a time. Attachments are summarized below:

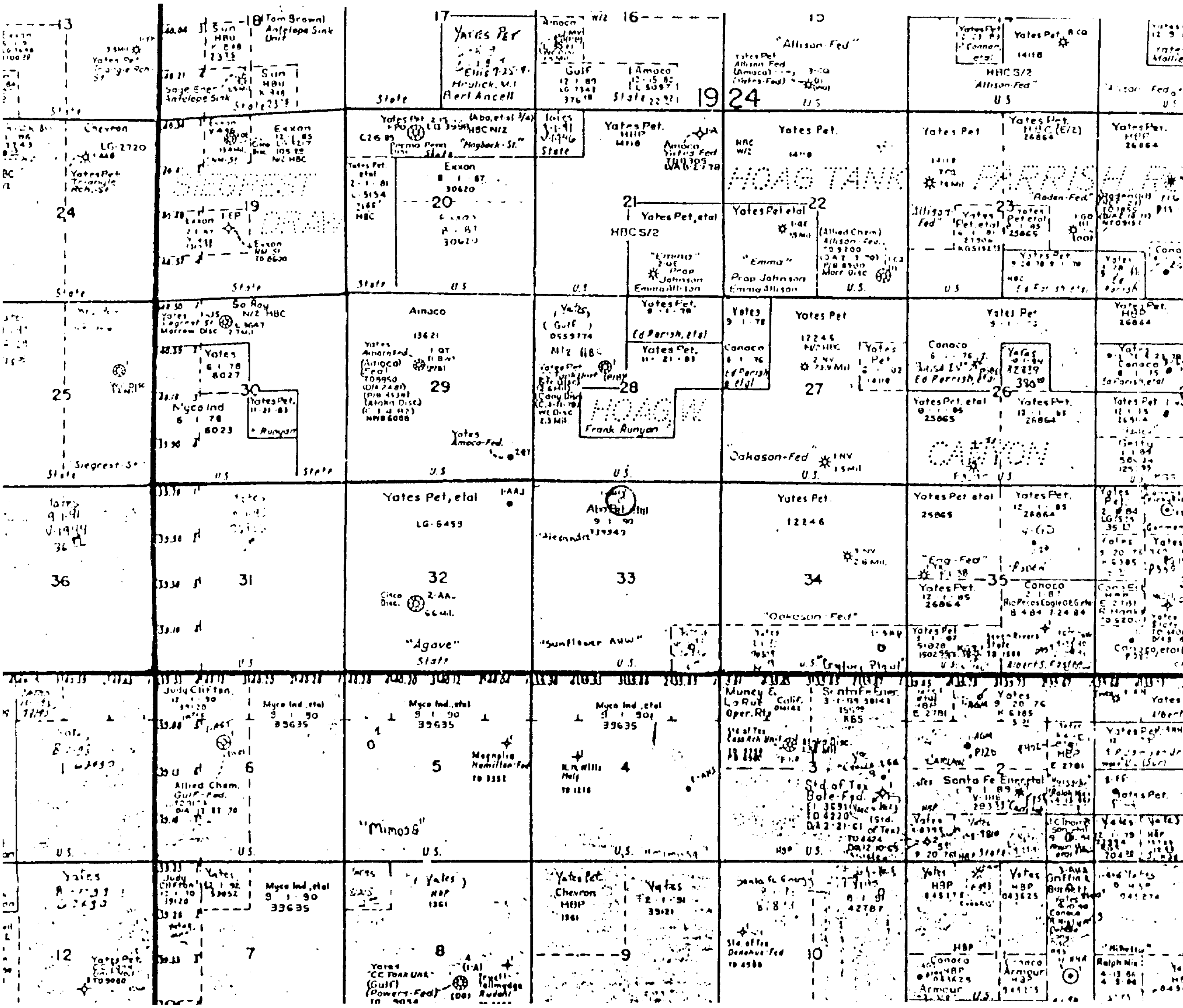
Case	Commingled	Produced Singly
Gross Reserves, MCF	907,445	832,962
Cum.Disc.Net Cash Flow, $	168,829	-44,162

K> A statement that all offset operators and, in the case of a well on federal land, the US BLM, have been notified in writing of the proposed commingling.

The offset operator for this area is Yates Petroleum, therefore the one office notified in writing of the proposed commingling of the Alexandre AHX Federal #1 is:

BUREAU OF LAND MANAGEMENT
P.O. Box 1778
Carlsbad, NM 88220
ATTN: Richard Manus
Area Manager

ATTACHMENT A



ALEXANDRE AHX FEDERAL #1

Unit C Sec 33-T 19S-R 24E
660' FNL and 2105' FWL
Eddy County, New Mexico
YATES PETROLEUM CORPORATION

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
YATES PETROLEUM CORPORATION	ALEXANDRE AHX FEDERAL	1

Unit Letter	Section	Township	Range	County
C	33	19 South	24 East	Eddy County, N.M.

Actual Footage Location of Well:
660 feet from the North line and 2105 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3770.	Morrow	Und. Morrow	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

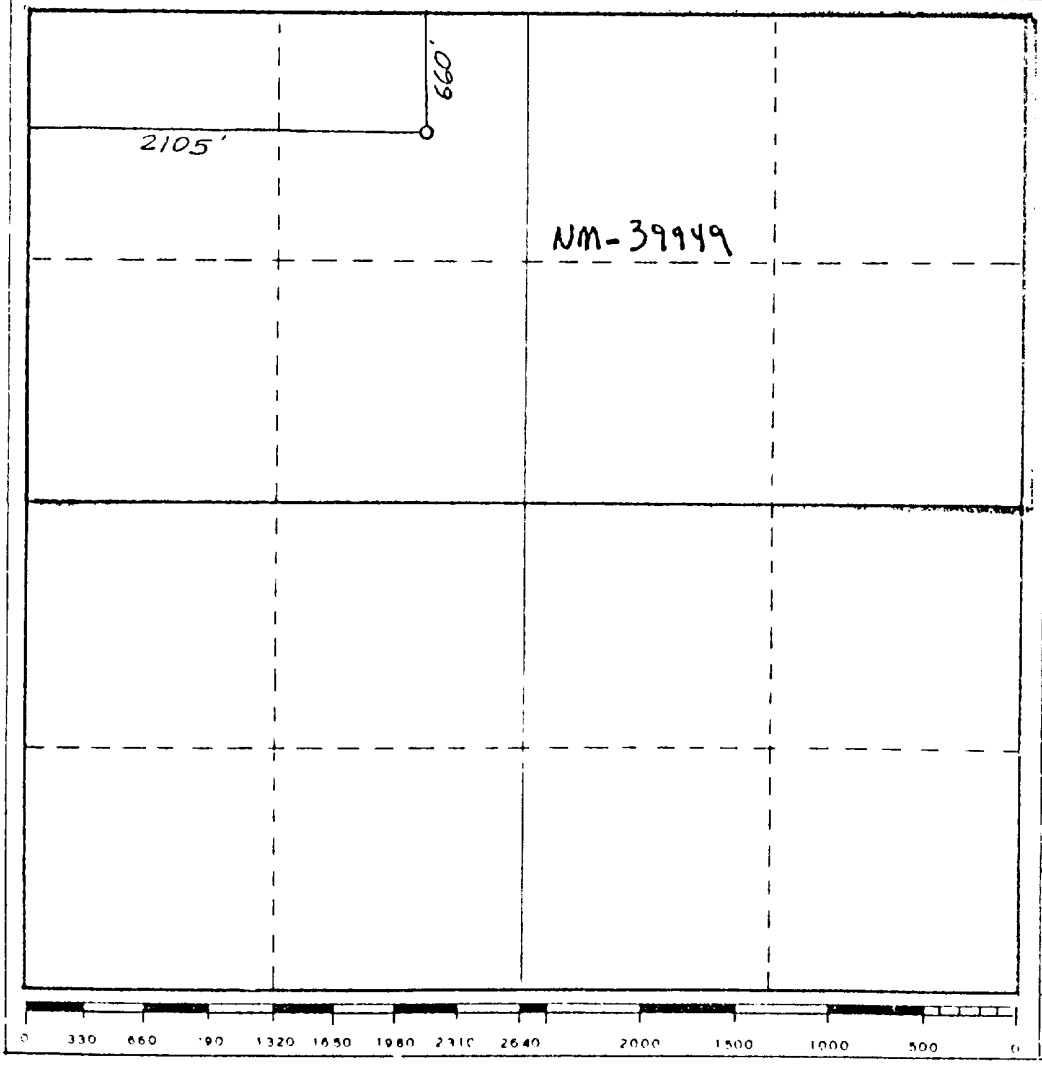
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☒ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: KEN BEARDEMPHL

Position: LANDMAN

Company: Yates Pet Corp.

Date: 7-3-90

DANA R. REDDY
NEW MEXICO
5412
REGISTERED PROFESSIONAL ENGINEER

I hereby certify that the well location shown on this plat 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.

Date Surveyed: July 3, 1990

Registered Professional Engineer and/or Land Surveyor

Certificate No. NM PE&LS NO. 5412

YATES PETROLEUM CORPORATION
CHRONOLOGICAL DRILLING REPORT
Alexandre "AHX" Federal #1
Unit C
33-19S-24E
Eddy County, New Mexico

8-13-90	Location: 660' FNL & 2105' FWL of Section 33-19S-24E, Eddy County, New Mexico. Lease No.: NM - 39949. Elevation: 3770' GR. PTD: 9200' Morrow. Drilling Contractor: McVay #4. Building location.
8-14-90	Building location.
8-15-90	Building location.
8-16-90	Building location.
8-17-90	Building location.
8-18-80	Waiting on rotary tools.
8-21-90	TD 40'. Moving in and rigging up rotary tools. Spudded 26" hole at 8:30 AM 8-20-90 with Frank's Rathole. Set 40' of 20" conductor. Redi-mix with 4 yards. Notified Kathy with Carlsbad BLM of spud.
8-22-90	TD 40'. Finish rigging up rotary tools. Will resume drilling this AM.
8-23-90	Drilling 550', no returns. Made 510' in 18-1/4 hours, 28'/hr. MW 8.3, Vis 28. Survey 358' 1/2 deg. WOB 25-50000#, RPM 64, SPM 46, PP 800#. Resumed drilling 9:30 AM 8-22-90. Lost returns at 60'. Mix and pump two LCM pills, no results. TIH with bit #2 at 358'. DMC $1200; CMC $1200; DC $37,683; CC $37,683
8-24-90	Drilling 1095'. Made 545' in 23-1/2 hours. MW 8.4, Vis 28, pH 7. Survey 786' 1 deg. WOB 55000#, RPM 64, SPM 46, PP 900#. DMC $0; CMC $1200; DC $24,320; CC $62,003
8-25-90	TD 1292', no returns. WOC. Made 197' in 13-1/4 hours, 14.9'/hr. MW 8.4, Vis 28, pH 7. Surveys 1193' 1-1/4 deg, 1292' 1 deg. SPM 50, PP 1300#. TD 14-3/4" hole 8:00 PM 8-24-90. Ran 30 joints 9-5/8" 36# J-55 (1296') casing, set 1292'. Texas Pattern Notched guide shoe set 1292'. Insert float set 1249'. PD 3:00 AM 8-25-90. Cemented with 900 sacks Halliburton Lite with 10#/sx Gilsonite, 1/2#/sx Flocele and 3% CaCl2 (yield 1.84, weight 12.7). Tailed in with 200 sacks "C" with 2% CaCl (yield 1.32, weight 14.8). PD 3:00 AM 8-25-90. Bumped plug to 700 psi, released pressure and float held okay. Cement did not circulate. Made up 1" pipe. DMC $851; CMC $1153; DC $17,338; CC $79,341
8-26-90	TD 1292'. One-inching. MW 8.4, Vis 28, pH 7. DETAILED ONE-INCH REPORT TO FOLLOW. CMC $1153; DC $15,684; CC $95,025
8-27-90	Drilling 1541'. Made 249' in 10 hours, 25'/hr. MW 8.4, Vis 28, pH 9, Cl 4200. WOB 60000#, RPM 70, SPM 50, PP 1500#. DETAILED ONE-INCH REPORT: Cement did not circulate. WOC 6 hours. Tagged top of cement 251'. Ran 1". Tagged cement 251'. Spotted 565 sacks Class "C" with 2% CaCl. Cement at 48'. Readi-mix with 34 yards. Circulated 2 yards. Drilled out 8:00 PM 8-26-90. WOC 41 hours. Nippled up and tested to 1000 psi for 30 minutes, OK. Reduced hole to 8-3/4". COMMENTS: Adam Salami with BLM Carlsbad, verbal to go to 1300'. Cementing witnessed by Kathy and Jim with BLM Carlsbad. Cement baskets at 351' and 576'.
8-28-90	Drilling 2230' dolomite. Made 689' in 23 hours, 30.65'/hr. MW 8.4, Vis 28, pH 10.5. Surveys 1782' 1-1/4 deg, 2226' 3/4 deg. WOB 60000#, RPM 70, SPM 50, PP 1500#. CMC $1153; DC $14,799.50; CC $124,688.50
8-29-90	Drilling 2990' dolomite. Made 760' in 23-1/2 hours, 32.3'/hr. MW 8.4, Vis 28, pH 10, Cl 3100, Calcium 700. Survey 2718' 1-1/4 deg. WOB 60000#, RPM 70, SPM 50, PP 1600#. DMC $228; CMC $1434; DC $12,720; CC $137,408.58
8-30-90	Drilling 3490' dolomite. Made 500' in 23 hours, 21.7'/hr. MW 9+, Vis 29, PV 1, pH 10. Survey 3215' 1-1/4 deg. WOB

60000#, RPM 70, SPM 50, PP 1700#. DMC $228; CMC $1434; DC $10,153; CC $147,561.50

8-31-90 Drilling 3980' dolomite. Made 490' in 22-3/4 hours, 21.53'/hr. MW 9.2, Vis 28, pH 10, Cl 78000, Calcium 1380. Surveys 3558' 1-1/4 deg, 3871' 2 deg. WOB 45000#, RPM 70, SPM 50, PP 1700#. DMC $222; CMC $1656; DC $8793; CC $156,354.50

9-1-90 Drilling 4325' dolomite. Made 345' in 21-3/4 hours, 12'/hr. MW 9.3, Vis 28, pH 10, Cl 78000, Solids 1%, Sand trace, Calcium 1380. Survey 3996' 1-1/2 deg, 40-90' 1-3/4 deg, 4182' 2-1/2 deg, and 4276' 2-1/4 deg. WOB 40000#, RPM 68, SPM 48, PP 1700#. DMC $0; CMC $1656; DC $6407.50; CC $162,762

9-2-90 Drilling 4567' dolomite. Made 242' in 22-1/4 hours, 10.9'/hr. MW 9.2, Vis 29, pH 10.5, Cl 74000, Calcium 1300. Surveys 4369' 2 deg, 4470' 2-1/2 deg and 4556' 2-1/2 hours. MW 40000#, RPM 68, SPM 48, PP 1700#. DMC $169; CMC $1825; DC $5840; CC $168,602

9-3-90 Drilling 4880' dolomite. Made 313' in 21-1/2 hours, 14.6'/hr. MW 9.3, Vis 28, pH 10, Cl 74000. Surveys 4649' 2-1/2 deg, 4751' 2 deg and 4836' 2-1/4 deg. WOB 40000#, RPM 60, SPM 48, PP 1700#. Circulate samples at 4816-4841'. DMC $169; CMC $1825; DC $5791.50; CC $174,393.50

9-4-90 TD 4907' dolomite. Test BOP. Made 27' in 1-1/4 hours, 21.6'/hr. MW 9.1, Vis 29, pH 10. Survey 4907' 2 deg. WOB 40000#, RPM 68, SPM 48, PP 1700#. Circulate samples at 4900'. Drilled to 4907'. Circulate for DST #1. SOH, no correction. Ran DST #1 4808-4907 (99') Abo. DMC $418; CMC $2243; DC $8552.50; CC $182,946

RESULTS OF DST #1 4808-4907' (99') Abo: TIMES 30-60-60-120-30. Opened tool with weak blow with 1/2", increased to 1.5" in 10 mins then decreased to 1.0" in 20 mins. Shut in with 1.0". Opened tool with weak blow (1/2") then increased to 1.0" in 5 mins. Shut in with 1.0". Opened tool with weak blow (1/2") and increased to 1.0" in 2 mins and remained at 1.0" for 30 mins. RECOVERY: 730' drilling fluid and sulter water. SAMPLER: 2420 cc water and 3 psi. PRESSURES:

DEPTH	4901'	4896'
IHP	2286	2270
IFP	57-151	53-142
ISIP	1821	1800
2nd FP	170-294	151-292
FSIP	1859	1847
FFP	322-360	302-349
FHP	2286	2270

REMARKS: No gas or fluids to surface during test. Pressure appears to have channelled around packers during final shut in.

9-5-90 Drilling 5187' dolomite. Made 280' in 17-1/2 hours, 16'/hr. MW 9.2+, Vis 28, pH 10, Cl 68000, Calcium 1300. Surveys 4992' 2-3/4 deg, 5086' 2-1/2 deg and 5178' 2-3/4 deg. WOB 35-40000#, RPM 70, SPM 50, PP 1700#. Tested BOP. Pick up BHA and ran drill collar in hole. Cut 55' drilling line. TIH, wash 40' to bottom. DMC $0; CMC $2243; DC $7353; CC $190,299

9-6-90 Drilling 5454' lime. Made 267' in 19-3/4 hours, 13.5'/hr. MW 9.2, Vis 28, Cl 86000, Solids 1/2, Calcium 1200. Surveys 5272' 2-1/2 deg and 5367' 2-3/4 deg. WOB 40000#, RPM 70, SPM 50, PP 1700#. TOH (chaining out), crack at 4212'. TIH. Resume drilling. DMC $589; CMC $2832; DC $5813; CC $196,110

9-7-90 Drilling 5825' lime. Made 371' in 19-1/2 hours, 19'/hr. MW 9.3, Vis 28, pH 10, Cl 86000, Calcium 1200. Surveys 5461' 2-1/4 deg, 5555' 2 deg, 5743' 1-3/4 deg. WOB 50-55000#, RPM 66, SPM 46, PP 1500#. TOH for hole in drill pipe - 52 stands and 1 single. CMC $2832; DC $8126; CC $204,238

9-8-90 Drilling 6315' lime. Made 490' in 22-3/4 hours, 21.5'/hr. MW 9.3, Vis 29, pH 10.5, Cl 85000, Solids 1-1/2%, Calcium

****

1300. Survey 5962' 3/4 deg. WOB 60000#, RPM 66, SPM 46, PP 1500#. DMC $129; CMC $2961; DC $8504; CC $212,742

9-9-90 Drilling 6790' lime. Made 475' in 21-1/2 hours, 22'/hr. MW 9.3, Vis 29, pH 10, Cl 85000, Solids 1-1/2%, Calcium 1300. Survey 6429' 3/4 deg. WOB 60000#, RPM 66, SPM 46, PP 1500#. Circulated samples at 6392'. CMC $2961; DC $8298; CC $221,040

9-10-90 Drilling 7236' dolomite. Made 446' in 20-1/2 hours, 21.75'/hr. MW 9.2+, Vis 29, pH 10, Cl 108,000, Calcium 1080. Survey 6836' 3/4 deg. WOB 60000#, RPM 60, SPM 46, PP 1600#. Circulated break 7195-7202' (7') and 7225-7236' (11'). DMC $328; CMC $3289; DC $8256; CC $229,296

9-11-90 Drilling 7688' lime. Made 452' in 19-1/4 hours, 23.48'/hr. MW 9.2+, Vis 29, pH 10, CL 108,000, Solids 1%, Calcium 1080. Survey 7214' 1 deg and 7568' 3/4 deg. WOB 60000#, RPM 66, SPM 45, PP 1600#. Circulate samples at 7400-7405' and 7452-7460'.DMC $0; CMC $3289; DC $8021; CC $237,317

9-12-90 TD 8007' dolomite and lime. Trip for bit and down hole leak. Made 319' in 14-1/2 hours, 22'/hr. MW 9.2, Vis 29, pH 10, Cl 98000, Solids 1%, Calcium 1080. Survey 7839' 1 deg. WOB 60000#, RPM 66, SPM 46, PP 1600#. Trip for hole in drill pipe (44 stands and double). Lay down BHA. Pick up BHA. TIh. DMC $148; CMC $3437; DC $6107.50; CC $243,424.50

9-13-90 Drilling 8482' dolomite. Made 475' in 22-1/4 hours, 21.34'/hr. MW 9.3, Vis 32, pH 10, FC 1/32, Cl 98000, Calcium 1080. Survey 8358' 1-1/4 deg. WOB 55000#, RPM 65, SPM 46, PP 1700#. Pick up kelley, wash to bottom. DMC $0; CMC $3437; DC $9139.50; CC $252,564

9-14-90 Drilling 8760' dolomite. Made 278' in 22-3/4 hours, 12.21'/hr. MW 9.4, Vis 34, PV 3, YP 6, Gels 21, pH 11, Wl 8, FC 1/32, Cl 95000, Solids 1-1/2%, Sand trace, Calcium 1360. Survey 8700' 1-3/4 deg. WOB 60000#, RPM 65, SPM 46, PP 1750#. DMC $1907; CMC $5344; DC $7231; CC $259,795

9-15-90 TD 8832' dolomite and shale. TOH with DST #2. Made 72' in 5-1/4 hours, 13.71'/hr. MW 9.5, Vis 43, PV 15, YP 8, Gels 5/10, pH 11, WL 4, FC 1/32, Cl 94,000, Solids 3%, Sand trace, Calcium 1260. Survey 8832' 3 deg. WOB 60000#, RPM 65, SPM 46, PP 1750#. Circulate for DST #2. TOH, SLM 8838.18' (no correction). Unload and make up test tools. TIH with test tools. Ran DST #2 8660-8832' (172') Morrow. TOH with DST #2. DMC $92; CMC $5436; DC $5271; CC $265,066

9-16-90 TD 8832' shale. Washing and reaming to bottom. Made 0'. MW 9.5, Vis 38, PV 14, YP 10, Gels 6/12, pH 10, WL 8, FC 1/32, Cl 84,000, Solids 3%, Sand trace, Calcium 1380. WOB 57000#, RPM 70, SPM 45, PP 1750#. TOH with test tools. Break out and load out tools. Pick up BHA. TIH. Drill rubber and wash to bottom. DMC $808; CMC $6640; DC $10731; CC $275,797

RESULTS OF DST 2 8660-8832' (172') Morrow: TIME 30-120-60-180. Opened tool with strong blow, increased from 3 oz to 5.5#. Shut in. Opened tool with 4#. Change to 1/4" choke with 12# in 5 mins. Gas to surface in 20 minutes. Flowing 45 MCFD in 35 mins. Check for H2S - none. Pressure increased from 4# to 16.5# in 35 mins and remain at 16.5# until end of flow period. Shut in. RECOVERY: 7572' free gas, 1280' mud. SAMPLER: 11.94 cu ft gas, 860 cc mud and 1810# pressure. PRESSURES: IHP 4299, IFP 201-206, ISIP 3195, FFP 150-267, FSIP 3405, FHP 4300.

WATER ANALYSIS:	PIT	SAMPLER	MIDDLE RECOVERY
Sp. Gravity	1.105 @ 74	-- @ 74	1.110 @ 74 deg
pH	10.0	7.3	8.0
Iron	N/D	N/D	N/D
H2S	N/D	N/D	N/D
Calcium	869	1000	360
Magnesium	330	146	438
Sod & Pot	--	--	53,831
Sulfate	3937	4750	3874
Bicarbonate	indeterminate	--	121

****

Chloride 84,163 93,000 81,982
REMARKS SAMPLE CHAMBER ANALYSIS: Could not obtain enough water to get specific gravity. All values are in mg/l.

9-17-90 TD 8832' lime and shale. Drill rubber. Made 0'. MW 9.5, Vis 50, PV 14, YP 10, Gels 6/12, WL 8, FC 2/32, Cl 84000, Calcium 1380. WOB 50000#, RPM 70, SPM 46, PP 1750#. Wash and ream hole, 150' fill. TOH. Lay down BHA. Work on pump. TIH with bit, hit bridge at 8700'. Had 80' fill. Wash and ream. Drilling rubber from packer. NOTE: circulated up 4 pieces of rubber 4" x 6" and lot of large pieces of black shale. DMC $800; CMC $7440; DC $6015; CC $281,812

9-18-90 Drilling 8940' shale. Made 108' in 18-3/4 hours, 5.75'/hr. MW 9.4, Vis 57, PV 19, YP 28, Gels 16/29, pH 10, WL 12, FC 2/32, Cl 87000, Sand 2.4, Calcium 720. WOB 45000#, RPM 66, SPM 47, PP 1500#. Wash to bottom. Work tight hole 8800-8850'. Resume drilling. Jet shale pit. DMC $973; CMC $7433; DC $4452; CC $286,264

9-19-90 TD 8980' lime and shale. Wash to bottom. Made 58' in 8-3/4 hours, 10.5'/hr. MW 9.7, Vis 80, PV 16, YP 23, Gels 7/15, pH 10.5, WL 8.2, FC 2/32, Cl 79000, Solids 3.3%. WOB 50000#, RPM 65, SPM 46, PP 1550#. Reached TD at 3:15 PM 9-18-90. Circulate. TOH, short trip. TIH, bridge at 8831'. Wash to bottom. Circulate and condition hole. Made 10 stand short trip. TIH, bridge at 8515'. Wash thru bridge. DMC $900; CMC $8333; DC $6839; CC $293,103

9-20-90 TD 8980' lime and shale. TIH. Made 0'. MW 9.5, Vis 126, PV 31, YP 42, Gels 21/49, pH 9.5, WL 7.2, FC 2/32, Cl 77000, Solids 3.4%, Calcium 600. Survey 8980' 1-1/4 deg. WOB 50000#, RPM 60, SPM 46, PP 1550#. Work tight hole 8830-40'. Made short trip (chain out 10 stands). Circulate. TOH, SLM 8986.10'. Log with Schlumberger. Loggers could not get past 8860'. TIH. DMC $1538; CMC $9871; DC $6578; CC $299,681

9-21-90 TD 8980' lime. Running 5-1/2" casing. Made 0'. MW 9.5, Vis 90, PV 31, YP 42, Gels 21/49, pH 11, WL 9.6, FC 2/32, Cl 72000, Solids 3.4%, Calcium 600. SPM 42, PP 1500#. Tripped, wash to bottom. Circulate and condition hole. Make short trip. Circulate and condition mud. Lay down drill pipe. Wait on casing crew 1/2 hour. Rig up and run casing. DMC $0; CMC $9871; DC $17,760; CC $317,441

9-22-90 TD 8980'. Waiting on completion unit..
DETAILED CASING REPORT: Ran 212 joints 5-1/2" 15.5# & 17# J-55 & N-80 (9023.04') casing, set 8980' as follows:• 9 joints 5-1/2" 17# N-80 8rd (368.56'), 42 joints 5-1/2" 17# J-55 8rd (1855.01'), 127 joints 5-1/2" 15.5# J-55 8rd (5303.56'), 22 joints 5-1/2" 17# J-55 8rd (967.77') and 12 joints 5-1/2" 17# N-80 8rd (528.14'). Float shoe set 8980', float collar set 8936' and DV tool set 5475.01'. Cemented 1st stage with 1250 sacks Class "H" with .4% Halad-22A, .3% CFR-3, 5#/sack salt and 5#/sack gilsonite with 500 gals superflush (yield 1.18, weight 15.6). PD 10:15 PM 9-21-90. Circulated 150 sacks to pit. Circulated thru DV tool 1-1/2 hours. Cemented 2nd stage with 1100 sacks Halliburton Lite with 1/4# flocele, 5# gilsonite (yield 1.84, weight 12.7). Followed with 100 sacks Class "H" Neat (yield 1.18, weight 15.6). PD 1:45 PM 9-21-90. WOC. Rig released 4:45 PM 9-21-90. NOTE: Blasted casing and centralizers across pays, marker joints at 8609' and 6103'. CMC $9871; DC $111,167; CC $428,608

9-25-90 Waiting on completion unit.
9-26-90 Waiting on completion unit.
9-27-90 Waiting on completion unit.
9-28-90 Waiting on completion unit.
9-29/10-1-90 Waiting on completion unit.
10-2-90 Waiting on completion unit.
10-3-90 Waiting on completion unit.
10-4-90 Waiting on completion unit.
10-5-90 Waiting on completion unit.
10-6-8-90 Waiting on completion unit.

****

10-9-90 Moved in and rigged up pulling unit. Installed 11" 3000# x 7-1/16 5000# tubinghead. Picked up 8-3/4" bit, 6 - 3-1/8" drill collars and 160 joints 2-7/8" J-55 tubing. Tag cement at 5324'. Drilled cement to 5327'. Drilled 1/2 DV tool. Shut down due to darkness. Prep to continue drilling DV tool and tag bottom. DC $47,704; CC $47,704

10-10-90 Continued drilling out DV tool. Tested to 1500#, OK. POH and TIH with 4-3/4" string mill and work through DV tool. POH. TIH with bit and scraper and cleaned out to 8832'. Circulated hole with 2% KCL water. Laid down 32 joints and POH. Rigged up wireline to run CBL. Prep to perforate and acidize Canyon Lime. DC $4185; CC $51,889

10-11-90 WIH on wireline and perforated Canyon Lime as follows: 7551-55', 7534-37', 7444-7454', 7398-7400', 7392-94', 7276-78', 7245-55' (2 SPF .40" holes). TIH with 5-1/2" Uni V packer and Uni VI RBP. Set RBP at 7592'. Spot 5 bbls acid and pulled packer to 7497'. Acidized perfs 7537-7555' with 2000 gals + 24 ball sealers. Communicated up with 1000 gals acid in perfs. Pulled packer to 7432'. Pumped 10 bbls and communicated up. Pulled packer to 7367'. Acidized perfs 7392-7555' with remaining 3100 gals + 90 ball sealers. Total load to recover 205 bbls. Treating Pressures: Min 2800#, Max 3350#, Avg 3000# at 4.1 BPM. ISDP 2800#, 15 mins 2100#. Rigged up swab. Recovered 151 bbls, 3-5 bbls per run. Making run every 20 minutes. Strong blow of gas after run for 5-10 minutes. Load left to recover 64 bbls. DC $13,754; CC $65,643

10-12-90 Swabbing 1000' scattered fluid, 2 - 2-1/2 bbls. made 2 runs per hour until noon. Placed on 1/4" choke for 2 hours. Stable at 100# - 166 MCF. Made swab run and recovered 800' scattered fluid (2 bbls). Recovered 39.5 bbls for the day. Load to recover 25 bbls. DC $1930; CC $67,573

10-13-15-90 SITP 1700#. Bled down. Loaded tubing. Moved RBP to 7335' and tested to 1000#, OK. Spot 2 bbls acid and pulled packer to 7143'. Acidized perfs 7245-55', 7276-78' with 2500 gals 15% NEFE + 40 ball sealers. Break down 1700#. Balled out. Treating Pressures: Min 2970#, Max 4800#, Avg 4.3 @ 3000#. ISDP 2150#, 15 mins 820#. Kick off in 3 runs. Flowed on 1/2" choke. Load to recover 143 bbls. DC $6153; CC $73,726

Flowed as follows:

TIME	BPH	TOTAL BBLS	PSI	CHOKE
4:00-5:00	55	70	175	1/2"
6:00	5	75	175	1/2"
7:00	7	82	175	1/2"
8:00	-	82	150	1/2"
9:00	-	82	150	1/2"
10:00	1	83	120	1/2"
11:00	-	83	100	1/2"
12:00	-	83	75	1/2"
1:00 AM	1	84	50	1/2"
2:00	-	84	40	1/2"
3:00	-	84	40	1/2"
4:00	-	84	40	1/2"
5:00	1/2	84.5	50	1/2"
6:00	-	84.5	40-60	1/2"
7:00	Sw 1 bbl	85.5	50	1/2"
8:00	-	85.5	50	1/2"
9:00	-	85.5	50	1/2"
10:00	-	85.5	100	1/4"
11:00	-	85.5	115	1/4"
12:00	Caught gas sample		115	1/4"
1:00	SI		115	1/4"

Flowing 115# on 1/4" choke = 188 MCF. Load left to recover 57 bbls.

GAS ANALYSIS:* 10-11-90; Perfs 7392-7555'

Total real BTU/Cu. Ft. (dry)	1110	1113
Total real BUT/Cu. Ft. (wet)	1091	1094
Real Spec Gravity	0.641	
Ideal Spec Gravity	0.640	

****

H2S on location: 271 ppm

GAS ANALYSIS:* 10-13-90; Perfs 7245-7278'

Total Real BTU/Cu.Ft. (dry)	1207	1210
Total Real BUT/Cu.Ft. (wet)	1186	1188

Real Spec Gravity 0.702
Ideal Spec Gravity 0.700
*DETAILED REPORT IN WELLFILE

10-16-90 SITP 775#. Bled down. Loaded tubing with 2% KCL. Moved RBP to 7592' and reset packer at 7123'. Loaded annulus and tested to 500#. Swabbed well in. At 5:00 PM well flowing 50# on 1/2" choke. Recovered 7 BWPH (2% oil) + 60 bbls water. Load left to recover 12 bbls. Left well open to tank on 1/2" choke. Gas from perfs 7245-78' had no H2S. DC $2014; CC $75,740

10-17-90 Flow well at 25# on 1/2" choke. No fluid recovered this day - 238 MCF. Prep to re-acidize. DC $1600; CC $770,340

10-18-90 SITP 1600#. Rigged up Western. Acidized (via 2-7/8" tubing) perfs 7245-7555' with 17000 gals 15% NEFE acid + 140 ball sealers. Balled off with 120 ball on 5600#. Pressure would not hold. Surge balls. Put acid away. Treating Pressures: Max 5600#, Min 1000#, Avg 3500# at 10 BPM. ISDP 2900#, 5 mins 2400#, 10 mins 2100#, 15 mins 2000#. Load to recover 470 bbls. Started swabbing. Recovered 80 bbls. At 4:00 PM well started flowing as follows:

TIME	BPH	CHOKE	PSI	OIL
5:00	34	32/64	500	Skim
6:00	49	32/64	450	Skim
7:00	31	32/64	350	Skim
8:00	35	32/64	275	Skim
9:00	15	32/64	250	Skim
10:00	10	32/64	200	Skim
11:00	10	32/64	150	Skim
12:00	5	32/64	150	Skim
1:00	5	32/64	125	Skim
2:00	7	32/64	100	
3:00	7	32/64	100	
4:00	7.5	32/64	75	
5:00	11.5	32/64	100	
6:00	14	32/64	100	
7:00	5	32/64	50	Skim
	246			

Total recovery at report time 326 bbls water + 3 bbls oil. Load left to recover 144 bbls. THIS AM - flowing 50# on 32/64" choke. DC $17,100

10-19-90 Well flowing 50# on 32/64" choke at 7:00 AM. Flowed well all day 50-75# on 32/64" choke. At 4:00 PM, made 35 bbls. Total recovered 361 bbls. Shut down crew and left well flowing to tank. Load left to recover 109 bbls. DC $2200; CC $787,440

10-20-22-90 FTP 60-65# on 32/64" choke. Flowed 30 bbls to tank overnight. Jarrel ran 72 hour buildup. Shut in. DC $2455; CC $789,895

WATER ANALYSIS: 10-20-90

Spec Gravity	1.100 @ 73	Sulfates	523
pH	5.0	Bicarbonate	221
Iron	Str trace	Chlorides	70000
Calcium	16363	Sod & Pot	22772
Magnesium	2209		

10-23-90 Shut in for bottom hole pressure buildup. Will pull bomb at 5:00 PM.

10-24-90 Bled down. Loaded hole. Unset packer. Latched onto RBP. Reset at 7175'. Would not test. POH. WIH with RBP and packer. Set at 7175'. Tested to 2000#. POH. Rigged up wireline. Perforated Wolfcamp - 2 SPF on 180 deg phasing as follows:
Zone 1 - 6335'-6338', 6330-6333', 6320-6325', 6314-6316, 6306-6310'.
Zone 2 - 6206-6209', 6200-6204', 6195-6198', 6187-6190', 6180-6182'.

Zone 3 - 6082-6092', 6076-6078'.
WIH with RBP with ball catcher and packer. Set RBP. Tested to 2000#. Set packer above Zone 1. Prep to swab. Recovered 38 bbls water with no show of oil or gas. DC $6002; CC $795,897

10-25-90 Unset packer. Spot acid through perforated interval 6306-6338'. Set packer above. Communicated. Tested in blank pipe to 3000#, held OK. Straddled Zone 1 and 2. Communicated up. Moved packer below all perforations. Reversed hole. Set packer above all perforations. Recovered 48 bbls water and swabbed dry. Slight show of gas (possibly acid gas). DC $6094.53; CC $801,991.53

10-26-90 SITP 1500#. Initial fluid level 3500'. Swabbed dry. Installed 1/4" positive choke with 150# after 1-1/2 hours. Gas would burn. Total fluid recovered 6 bbls. DC $1337.50; CC $803,329.03

WATER ANALYSIS:	10-24-90	10-25-90
Spec Gravity	1.1230 @ 70	1.1150 @ 70
Resistivity	.060 @ 70	.060 @ 70
pH	6.5	6.5
Calcium	30,559	30,752
Magnesium	1632	2332
Chlorides	109,000	102,000
Sulfates	1600	1000
Bicarbonates	305	549
Iron	500	500
KCL	.5%	--

10-27-90 Caught gas sample. Acidized perfs 6076-6338' with 9000 gals 15% NEFE acid, 400# BAF + 180 ball sealers. Treating Pressurs: Max 4600#, Avg 2400# at 5 BPM. ISDP 2037#, 5 mins 1627#, 10 mins 1548#, 15 mins 1329#. Total load to recover 260 bbls. Flowed and swabbed 112 bbls. DC $10,371.58; CC $813.700.61

10-28-90 Swabbed 38 bbls. Swabbed dry. Shut in. DC $1025; CC $814,725.61

10-29-90 SITP 1400#. Flowed 4-1/2 bbls. Swabbed 1-1/2 bbls - dry. Installed 1/4" positive choke. Flow rate 150# for 2 hours. DC $1050; CC $815,775.61

GAS ANALYSIS: Perfs 6076-6338' Wolfcamp; 10-26-90

Real BTU/Cu.Ft. (dry)	1145
Real BTU/Cu.Ft. (wet)	1125
Real Spec Gravity	0.660
Ideal Spec Gravity	0.659

*Complete results in wellfile.

10-30-90 SITP 1500#. Flowed 2 bbls. Ran swab. Recovered a total of 4 bbls. Installed 1/4" choke with 150#. DC $1165; CC $816,940.61

WATER ANALYSIS:	10-28-90		
Spec Gravity	1.1182 @ 70	Resistivity	.60 @ 70
pH	6.5	Sulfates	1600
Iron	500	Bicarbonates	763
Calcium	29,503	Chlorides	105,000
Magnesium	4081	KCL	Nil

10-31-90 SITP 1300#. Flowed to tank on 1/4" choke until Noon. Rigged up Bennett & Cathey. Ran 168-hr BHP bomb. Rigged down unit. DC $880; CC $216,675

11-1-90 Shut in, 168 hour BHP bomb. CC $216,675

11-2-90 Shut in. CC $216,675

11-3-5-90 Shut in.

11-6-90 Shut in.

11-7-90 Shut in.

11-8-90 Shut in.

11-9-90 Shut in.

11-10-12-90 Shut in.

11-13-90 Shut in.

11-14-90 Shut in.

ATTACHMENT C

ALEXANDRE AHX FED 1
33-19S-24E
EDDY CO., NM

BFIT ECONOMICS LOWER CANYON AND WOLFCAMP COMMINGLED

D&C INVESTMENT = $570,000
FACILITIES = $38,500
GAS PRICE = $1.50/MBTU
PRODUCTION TAXES = 8.1%
OPERATING EXPENSE = $9000/YR
YATES NET INTEREST = 0.8125
DISCOUNT RATE = 10%
LOWER CANYON INITIAL RATE = 375 MCFPD, 1.18 MBTU/MCF, 20% DECLINE
WOLFCAMP INITIAL RATE = 200 MCFPD, 1.13 MBTU/MCF, 20% DECLINE

TIME	START RATE (MCF/D)	FINISH RATE (MCF/D)	ANNUAL PRODUCTION (MCF)	START RATE (MCF/D)	FINISH RATE (MCF/D)	ANNUAL PRODUCTION (MCF)	NET ANNUAL PRODUCTION (MCF)	NET REVENUE ($)	OPERATING EXPENSES ($)	PRODUCTION TAXES ($)	UNDISCOUNTED CASH FLOW ($)	DISC. FACTOR	DISCOUNTED CASH FLOW ($)	CUM. DISC. CASH FLOW ($)
0											-608500		-608500	-608500
1	375	300	122679	200	160	65429	152837	266535	9000	21589	235946	0.9535	224966	-383534
2	300	240	98143	160	128	52343	122270	213228	9000	17271	186957	0.8668	162051	-221483
3	240	192	78514	128	102	41874	97816	170583	9000	13817	147765	0.7880	116437	-105046
4	192	154	62812	102	82	33500	78253	136466	9000	11054	116412	0.7164	83392	-21654
5	154	123	50249	82	66	26800	62602	109173	9000	8843	91330	0.6512	59477	37822
6	123	98	40199	66	52	21440	50082	87338	9000	7074	71264	0.5920	42190	80012
7	98	79	32160	52	42	17152	40065	69871	9000	5660	55211	0.5382	29715	109727
8	79	63	25728	42	34	13721	32052	55896	9000	4528	42369	0.4893	20730	130457
9	63	50	20582	34	27	10977	25642	44717	9000	3622	32095	0.4448	14276	144733
10	50	40	16466	27	21	8782	20513	35774	9000	2898	23876	0.4044	9655	154387
11	40	32	13173	21	17	7025	16411	28619	9000	2318	17301	0.3676	6360	160747
12	32	26	10538	17	14	5620	13129	22895	9000	1855	12041	0.3342	4024	164771
13	26	21	8430	14	11	4496	10503	18316	9000	1484	7833	0.3038	2380	167151
14	21	16	6744	11	9	3597	8402	14653	9000	1187	4466	0.2762	1233	168384
15	16	13	5395	9	7	2878	6722	11722	9000	950	1773	0.2511	445	168829
			591812			315633	737300	1285787	135000	104149	438138		168829	