

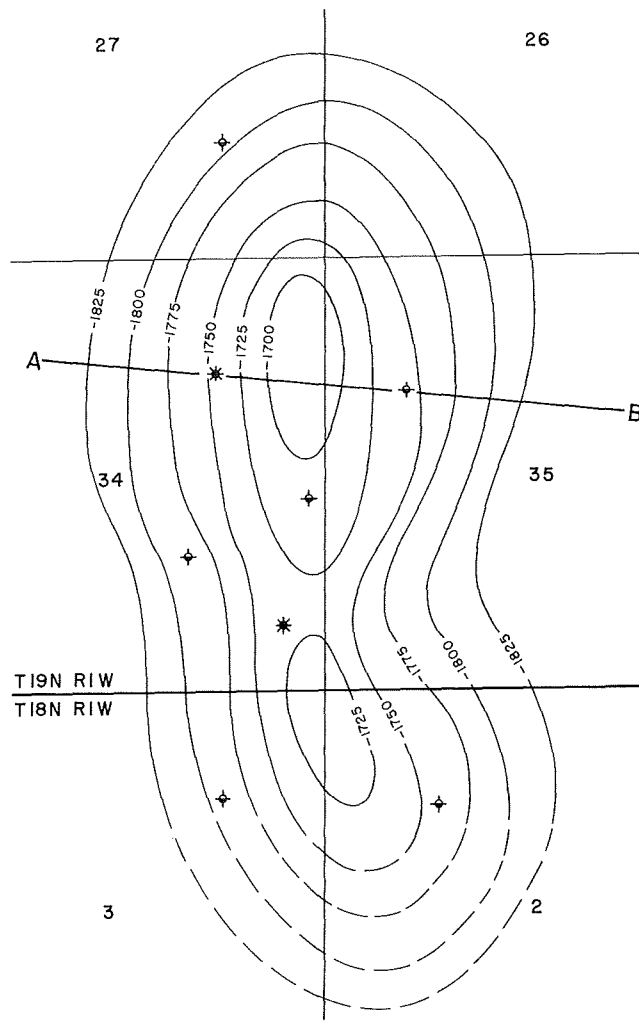
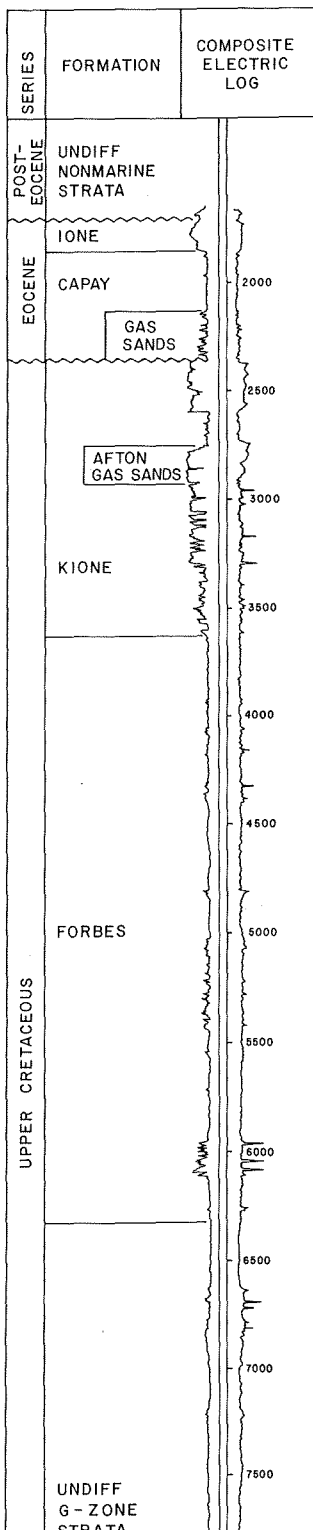
G103042

AREA
CA
O&G
Fields

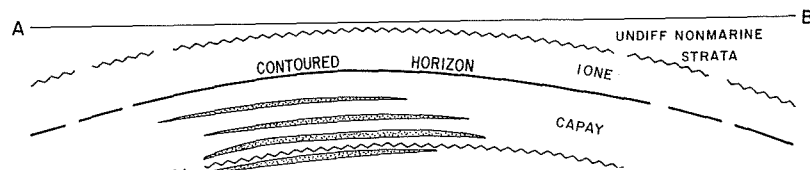
SUPPLEMENT TO
CALIFORNIA OIL AND GAS FIELDS
NORTHERN CALIFORNIA

UNIVERSITY OF UTAH
RESEARCH INSTITUTE
EARTH SCIENCE LAB.

AFTON GAS FIELD



CONTOURS ON TOP OF CAPAY



CALIFORNIA DIVISION OF OIL AND GAS

AFTON GAS FIELD (Field)
Glenn County (County)

LOCATION: 4 miles northeast of Princeton

ELEVATION: 85

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Capay	Buttes Resources Co. "Afton Community 2" 1	Richfield Oil Corp. "Afton Community 2" 1	34 19N 1W	MD	485	640	11/64	Nov. 1949
Afton	Buttes Resources Co. "Afton Community 1" 1	Richfield Oil Corp. "Afton Community 1" 1	34 19N 1W	MD	5,700	550	5/8	Feb. 1944

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Atlantic Richfield Co. "ROCO-Afton Community" 66-34	Richfield Oil Corp. "ROCO-Afton Community" 66-34	June 1962	34 19N 1W	MD	8,992	Basement (quartz diorite)	pre-Lt. Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Capay	1,830	30	Eocene	Capay	770	26,400	800	III B 2M
Afton	2,650	25	Late Cretaceous	Kione	770	26,400	1,225	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
2,118	0	140	2	4,770,583	821,134	1949	8	2	160

SPACING ACT: Applies

BASE OF FRESH WATER: 1,300

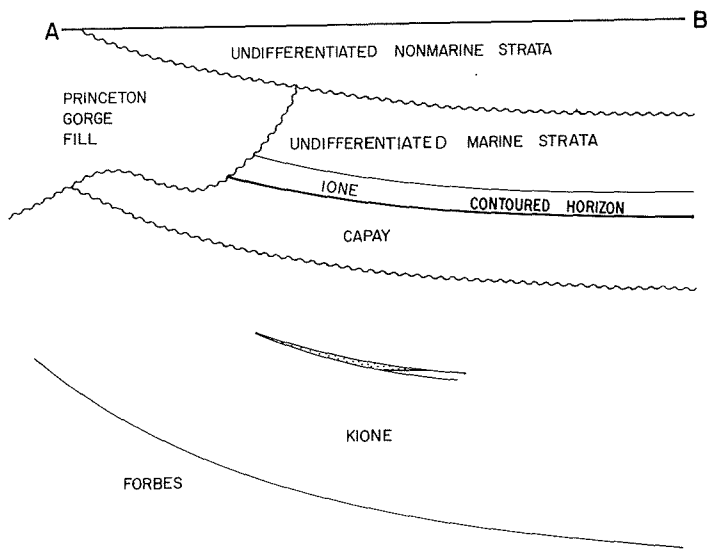
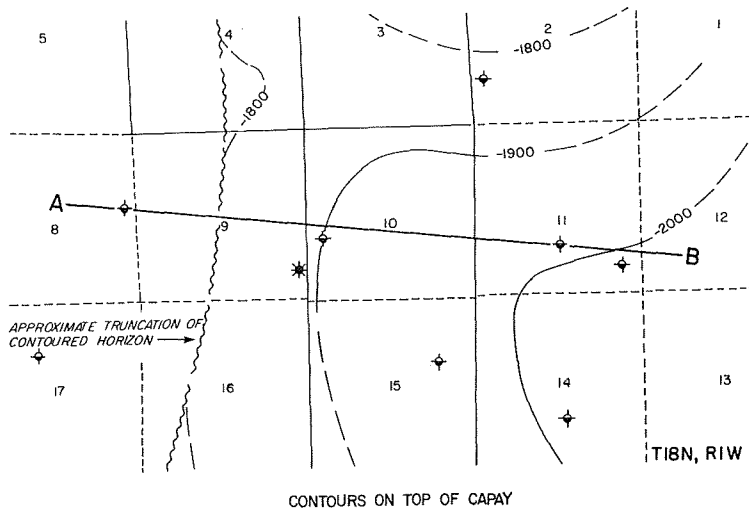
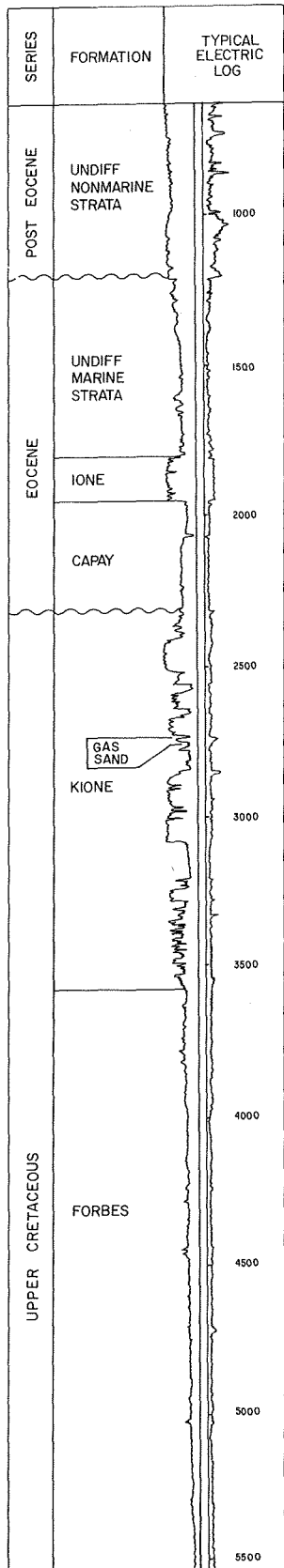
CURRENT CASING PROGRAM: 10 3/4" cem. 550; 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in December 1947.

REFERENCES: None

January 1978

SOUTH AFTON GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

AFTON, SOUTH, GAS FIELD (Field)
 Glenn County (County)

LOCATION: 3 miles northeast of Princeton

ELEVATION: 75

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Shell Oil Co. "Cecil" 1-9	Same	9 18N 1W	MD	9,600	1,100	N.A.	Nov. 1975

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Shell Oil Co. "Cecil" 1-9	Same	Oct. 1975	9 18N 1W	MD	3,740	Forbes	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,735	15	Late Cretaceous	Kione	778	N.A.	1,200	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	40	0	0	See Remarks	--	2	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,300

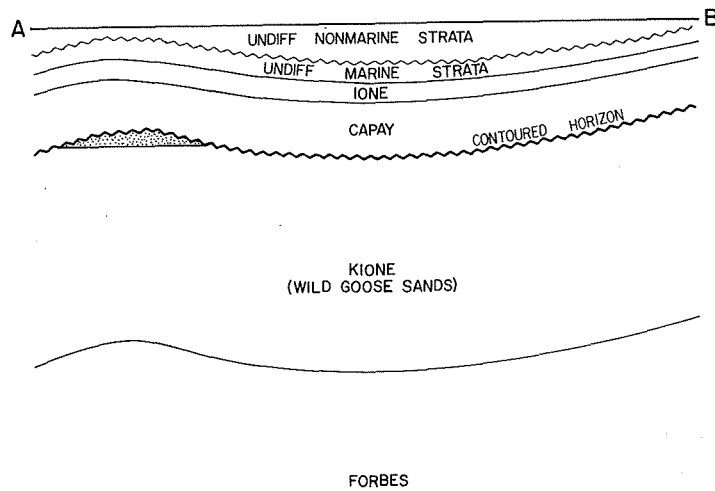
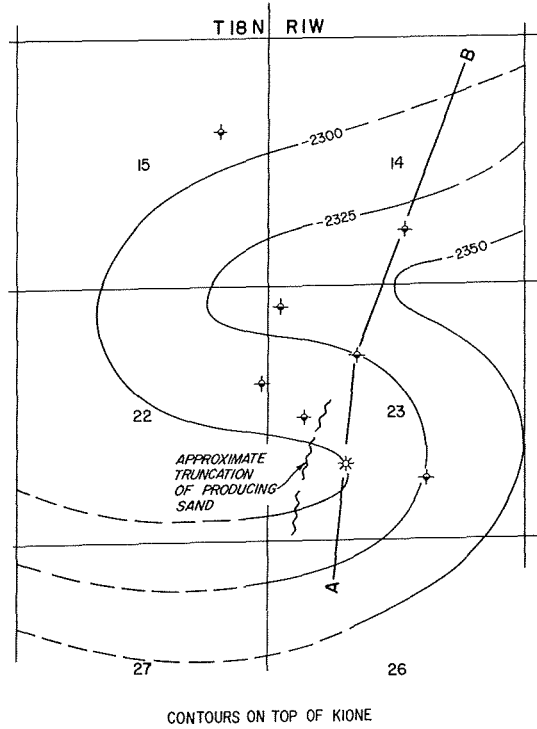
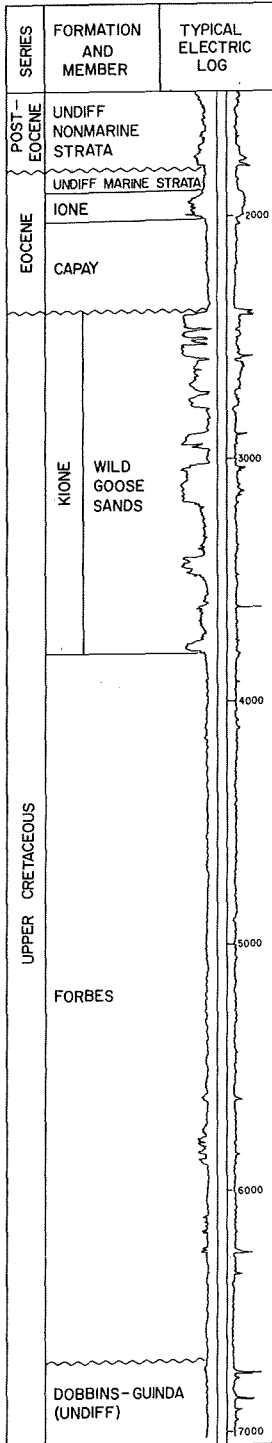
CURRENT CASING PROGRAM: 8 5/8" cem. 1,400; 5 1/2" cem. through zone.

REMARKS: Commercial gas deliveries have not yet begun.

REFERENCES: None

January 1978

ANGEL SLOUGH GAS FIELD (Abandoned)



CALIFORNIA DIVISION OF OIL AND GAS

CLARKSBURG GAS FIELD (Field)
 Yolo County (County)

LOCATION: 12 miles southwest of Sacramento

ELEVATION: 1

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Pollock Forbes	Occidental Pet. Corp. "Pollock Unit" 1 Occidental Pet. Corp. "Sherman Unit" 5	Same Same	5 6N 4E 32 7N 4E	MD MD	14,300 1,122	1,110 2,110	3/4 10/64	July 1963 June 1966

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Union Oil Co. of Calif. "Union-Dow Standard Community 1" 1	Same	Jan. 1962	31 7N 4E	MD	12,235	Dobbins	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Pollock Forbes	7,450 11,100	20 50	Late Cretaceous Late Cretaceous	Winters Forbes	930 894	12,200 11,500	3,350 5,110	III B 3M III B 5M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
41,863	46	150	2	2,488,330	686,595	1966	14	6	480

SPACING ACT: Applies

BASE OF FRESH WATER: 2,100

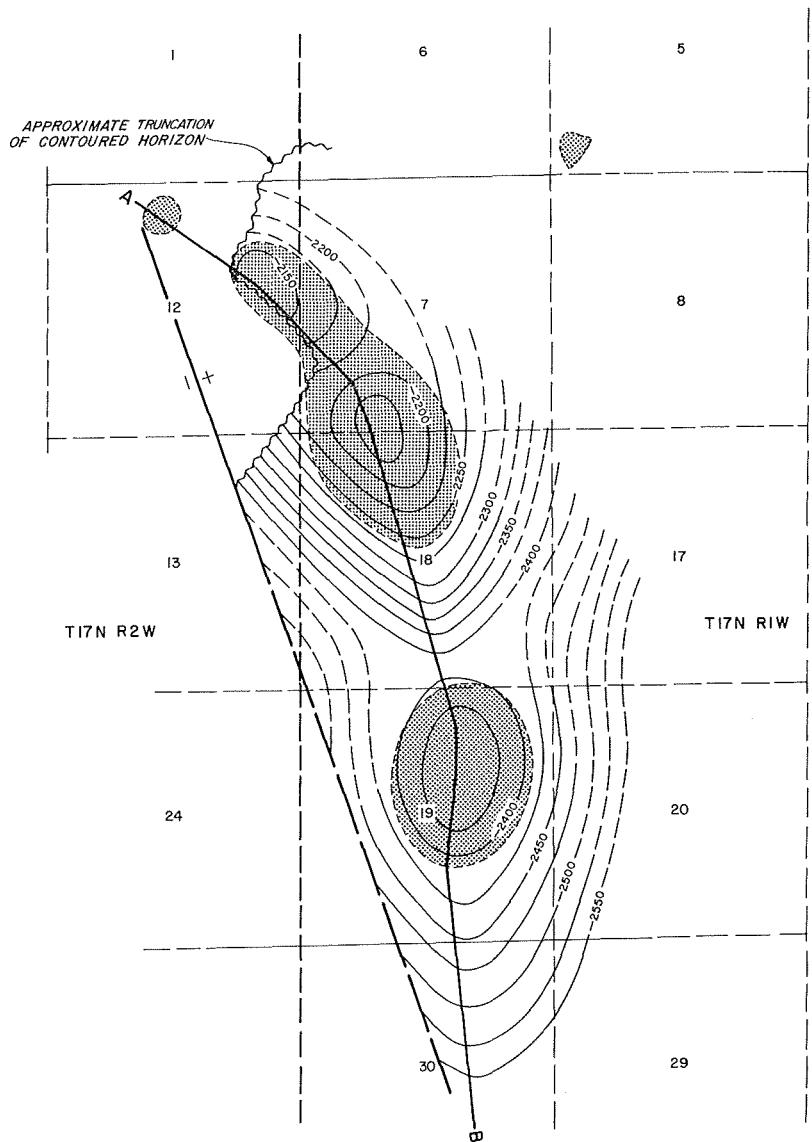
CURRENT CASING PROGRAM: Winters Formation: 9 5/8" cem. 900; 5 1/2" cem. through zone and across base of freshwater sands.
 Forbes Formation: 9 5/8" cem. 1,500; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in January 1966.

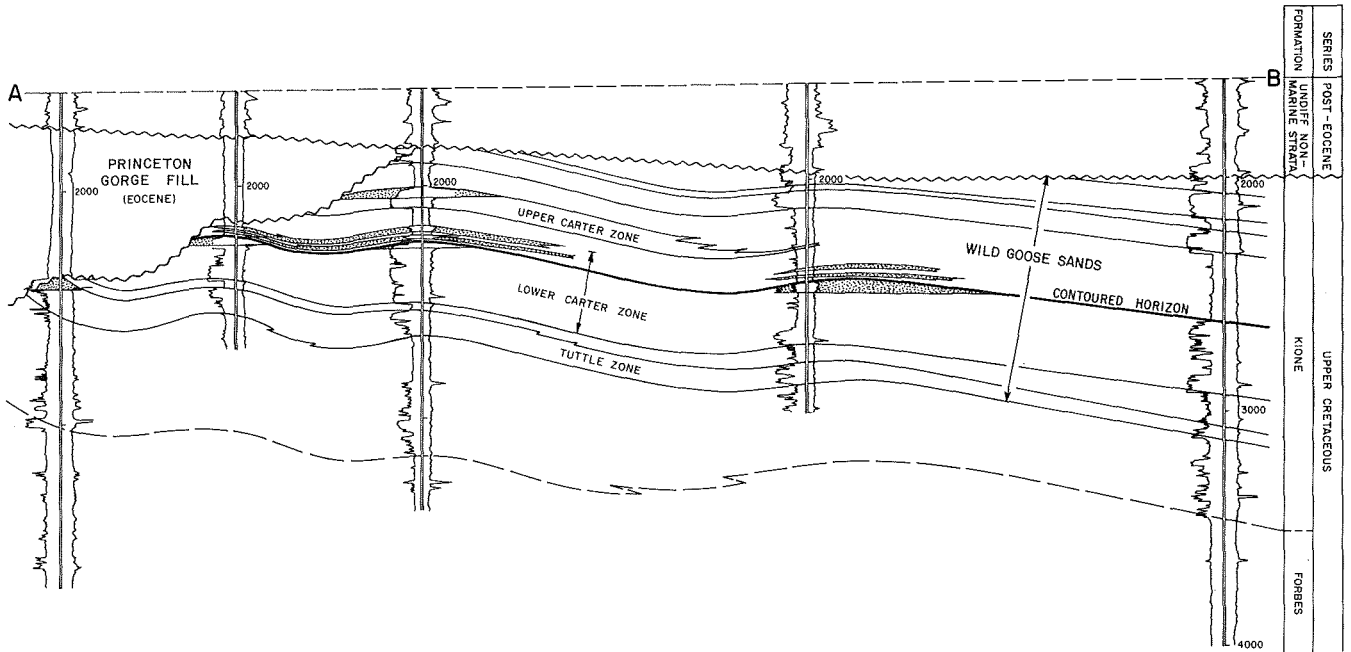
REFERENCES: Lorshbough, A. L., Clarksburg Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 55, No. 1 (1969).

January 1978

COMPTON LANDING GAS FIELD



CONTOURS ON TOP OF MAIN CARTER SAND



CALIFORNIA DIVISION OF OIL AND GAS

COMPTON LANDING GAS FIELD (Field)
Colusa County (County)

LOCATION: 5 miles south of Princeton

ELEVATION: 80

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Upper Carter	Exxon Corp. "Carter" 1	Honolulu Oil Corp. "Honolulu-Humble Carter" 1	7 17N 1W	MD	1,470	800	20/64	Nov. 1955
Catfish	Gulf Oil Corp. "Rheem-Hammer" 1	Universal Consolidated Oil Co. "Rheem-Hammer" 1	5 17N 1W	MD	5,130	830	32/64	Sep. 1960
Lower Carter	Exxon Corp. "Carter" 1	Honolulu Oil Corp. "Honolulu-Humble Carter" 1	7 17N 1W	MD	1,650	860	20/64	Nov. 1955
Tuttle	Exxon Corp. "Tuttle Unit 1" 1	Honolulu Oil Corp. "Honolulu-Humble Tuttle Unit" 1	12 17N 2W	MD	1,400	990	16/64	July 1955
(Unnamed)	Exxon Corp. "Carter" 2	Humble Oil & Rfg. Co. "Carter" 2	18 17N 1W	MD	1,270	800	13/64	July 1963

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Aminoil USA, Inc. "Forry" 1	Signal Oil & Gas Co. "Forry" 1	Dec. 1971	30 17N 1W	MD	10,777	Venado	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Upper Carter	2,020	40	Late Cretaceous	Kione	810	12,000	860	III B 2M
Catfish	2,310	20	Late Cretaceous	Kione	N.A.	17,600	980	III B 2M
Lower Carter	2,190	60	Late Cretaceous	Kione	810	12,000	950	III B 2M
Tuttle	2,550	40	Late Cretaceous	Kione	920	12,000	1,015	III B 2M
(Unnamed)	6,260	15	Late Cretaceous	Forbes	800	12,000	4,450	III B 5M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
61,016	1	130	1	8,134,474	1,089,651	1960	25	11	440

SPACING ACT: Applies

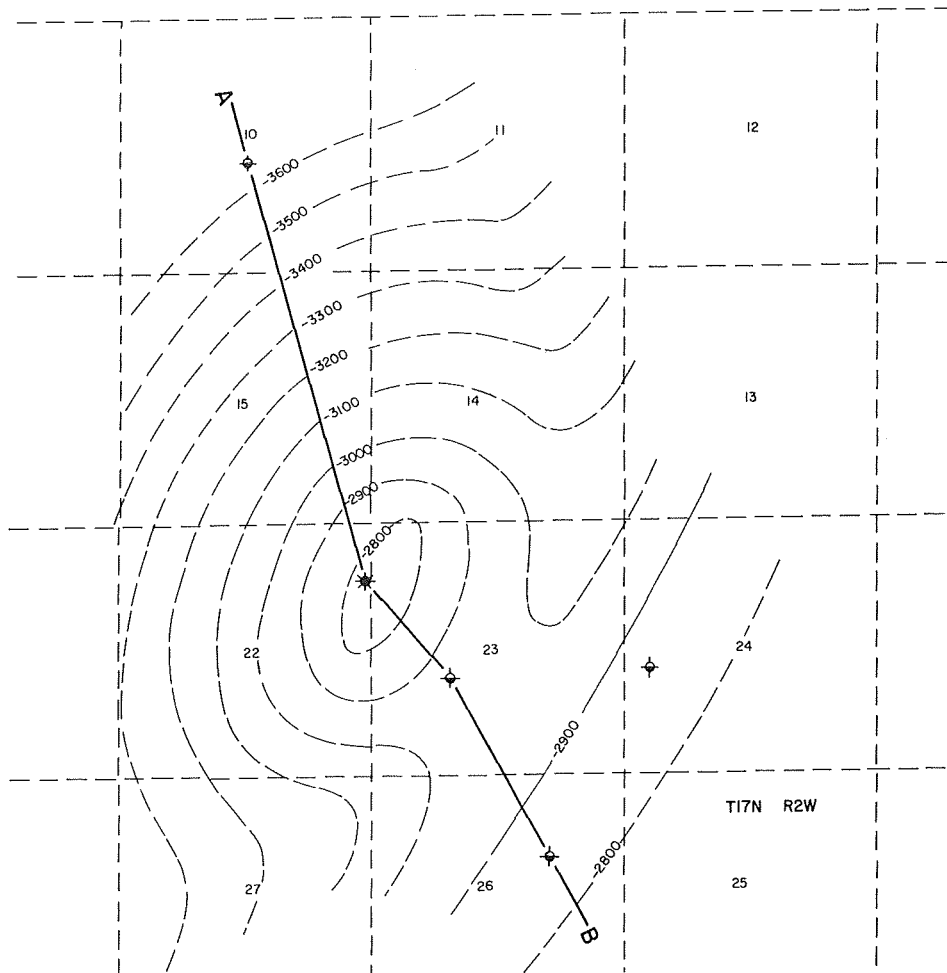
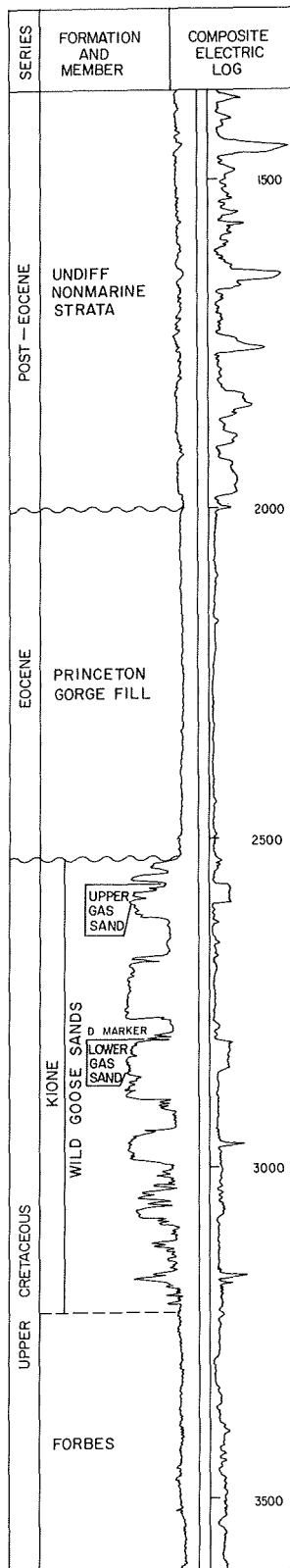
BASE OF FRESH WATER: 1,300

CURRENT CASING PROGRAM: Kione Formation: 9 5/8" cem. 600; 5 1/2" cem. through zone and across base of freshwater sands.
Forbes Formation: 13 3/8" cem. 600; 9 5/8" cem. 3,000; 5 1/2" cem. through zone.

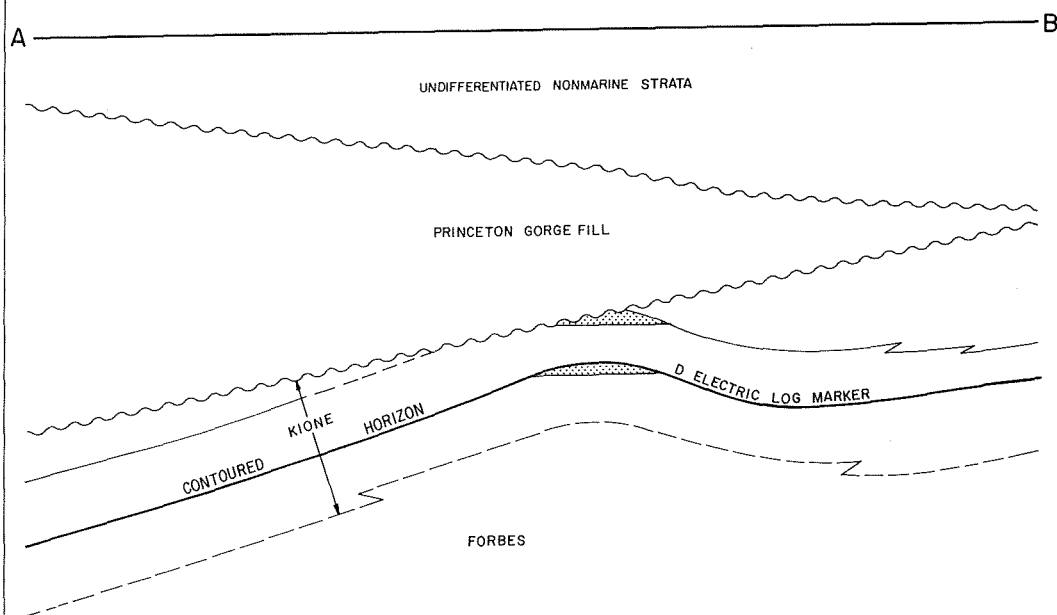
REMARKS: Commercial gas deliveries began in September 1957.

REFERENCES: Bruce, D. D., Compton Landing Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 44, No. 2 (1958).

SOUTH COMPTON LANDING GAS FIELD



CONTOURS ON D ELECTRIC LOG MARKER



CALIFORNIA DIVISION OF OIL AND GAS

COMPTON LANDING, SOUTH, GAS FIELD (Field)
Colusa County (County)

LOCATION: 6 miles southwest of Princeton

ELEVATION: 70

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed) (Unnamed)	Shell Oil Co. "Transamerica" 1-22 Same	Same Same	22 17N 2W 22 17N 2W	MD MD	N.A. 405	N.A. 1,150	N.A. N.A.	Jan. 1976 Jan. 1976

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Shell Oil Co. "Transamerica" 1-22	Same	Dec. 1975	22 17N 2W	MD	3,900	Forbes	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,600	50	Late Cretaceous	Kione	N.A.	N.A.	N.A.	III B 2M
(Unnamed)	2,850	15	Late Cretaceous	Kione	757	N.A.	1,270	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	40	0	0	See Remarks	--	1	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,600

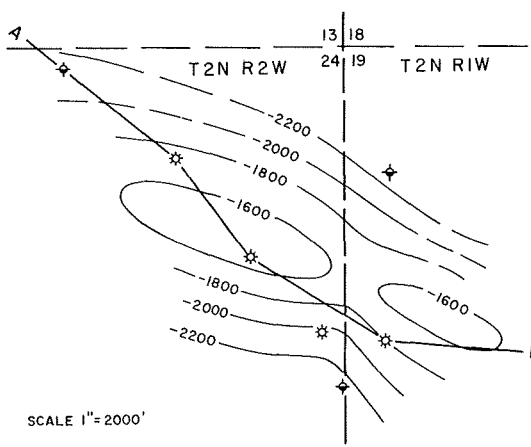
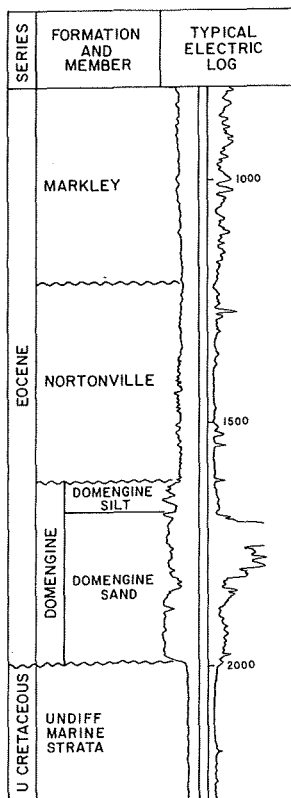
CURRENT CASING PROGRAM: 8 5/8" cem. 1,200'; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in September 1977.

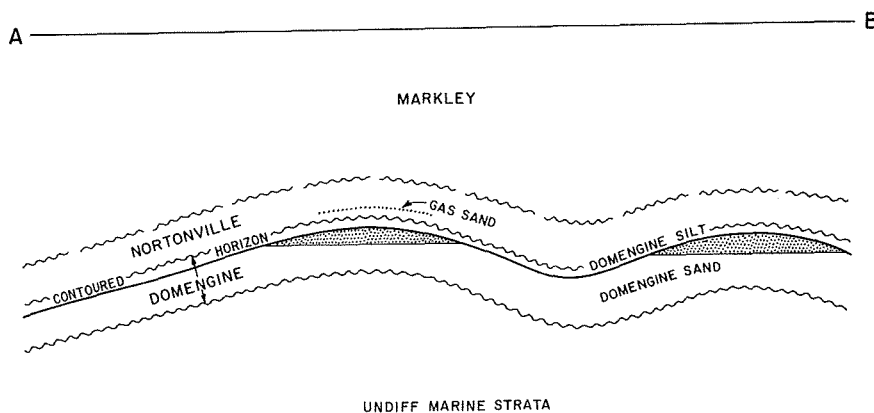
REFERENCES: None

January 1978

CONCORD GAS FIELD (Abandoned)



CONTOURS ON TOP OF DOMENGINE SAND



CALIFORNIA DIVISION OF OIL AND GAS

CONCORD GAS FIELD (Abandoned) (Field)
 Contra Costa County (County)

LOCATION: 1 mile north of Concord

ELEVATION: 120

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Nortonville Domengine (Unnamed)	Getty Oil Co. "Concord Unit 2" 1 Chevron U.S.A. Inc. "Boylan" 1 Chevron U.S.A. Inc. "Boylan" 1	Tidewater Oil Co. "Concord Unit 2" 1 Standard Oil Co. of Calif. "Boylan" 1 Standard Oil Co. of Calif. "Boylan" 1	24 2N 2W	MD	2,000	540	24/64	July 1964
			24 2N 2W	MD	1,950	724	19/64	Dec. 1962
			24 2N 2W	MD	2,725	780	3/8	

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Chevron U.S.A. Inc. "Boylan" 1	Standard Oil Co. of Calif. "Boylan" 1	Nov. 1962	24 2N 2W	MD	4,442	G or H zone (Goudkoff)	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Nortonville	1,650	20	Eocene	Nortonville	1,000	N.A.	825	III B 2M
Domengine	1,900	17	Eocene	Domengine	990	2,910	1,240	III B 2M
(Unnamed)	2,208	90	Late Cretaceous	Undiff. marine strata	980	11,810	1,200	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	0	0	3,068,869	938,823	1964	8	4	160

SPACING ACT: Applies

BASE OF FRESH WATER: Above 500

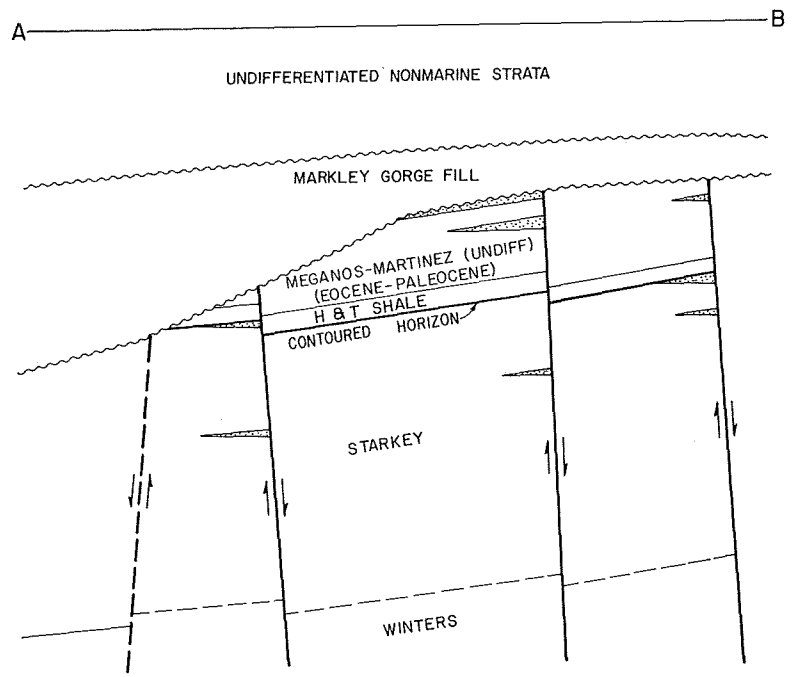
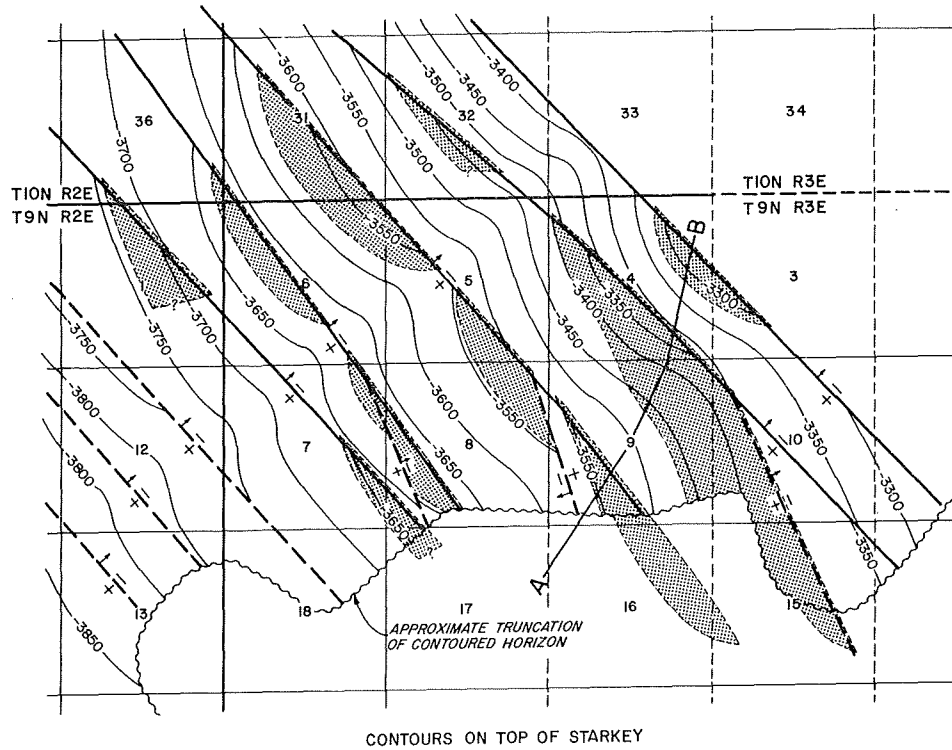
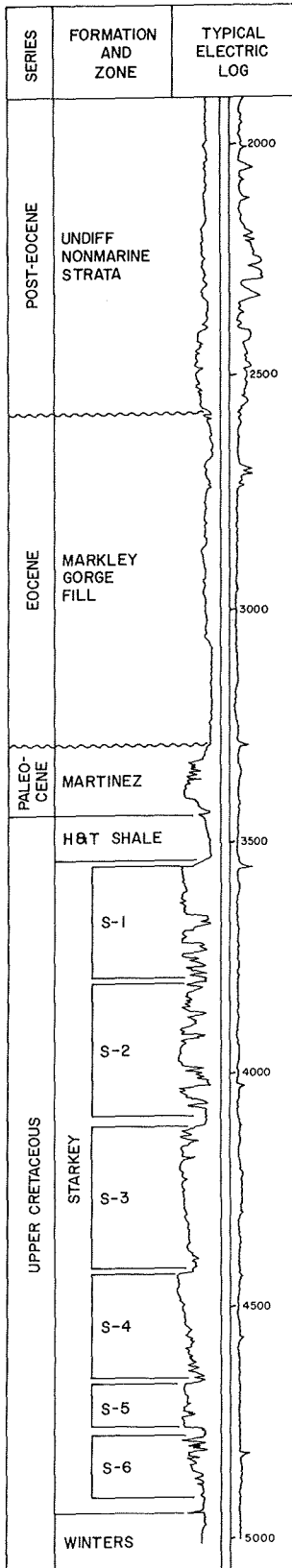
CURRENT CASING PROGRAM: 10 3/4" or 8 5/8" cem. 500 to 900; 7" to 4 1/2" cem. through zone.

REMARKS: Commercial gas deliveries began in March 1963. The field was abandoned in September 1969.

REFERENCES: None

January 1978

CONWAY RANCH GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

CONWAY RANCH GAS FIELD (Field)
 YoLo County (County)

LOCATION: 6 miles east of Woodland

ELEVATION: 19

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Shell Oil Co. "I.O.C." 15-1	Same	15 9N 3E	MD	6,250	1,040	1/2	July 1973
(Unnamed)	Shell Oil Co. "Natomas I.O.C." 1	Same	9 9N 3E	MD	5,310	1,110	Var.	June 1973
S-1	Atlantic Oil Co. "I.O.C." 2	Same	8 9N 3E	MD	3,200	1,425	21/64	July 1972
S-3	Same	Same	8 9N 3E	MD	3,400	1,500	21/64	July 1972
(Unnamed)	Chanslor-Western Oil & Dev. Co. "ARCO-W.F.L." 1	Westates Pet. Co. "ARCO-W.F.L." 1	1 9N 2E	MD	5,000	1,675	3/8	June 1975

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Buttes Resources Co. "Humble-Investment Opr. Inc." 2	Buttes Gas & Oil Co. "Humble-Investment Opr. Inc." 2	Sep. 1965	1 9N 2E	MD	6,700	Kione	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,900	20	Eocene-Paleocene	Meganos-Martinez	770	N.A.	1,390	III B 2M
(Unnamed)	3,000	30	Eocene-Paleocene	Meganos-Martinez	764	N.A.	1,340	III B 2M
S-1	3,600	30	Late Cretaceous	Starkey	860	N.A.	1,720	III B 2M
S-3	4,210	20	Late Cretaceous	Starkey	720	N.A.	1,860	III B 2M
(Unnamed)	5,160	10	Late Cretaceous	Winters	N.A.	N.A.	2,320	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
3,215,662	5,883	2,180	20	9,300,151	3,824,342	1975	57	31	2,180

SPACING ACT: Applies

BASE OF FRESH WATER: 2,200-2,600

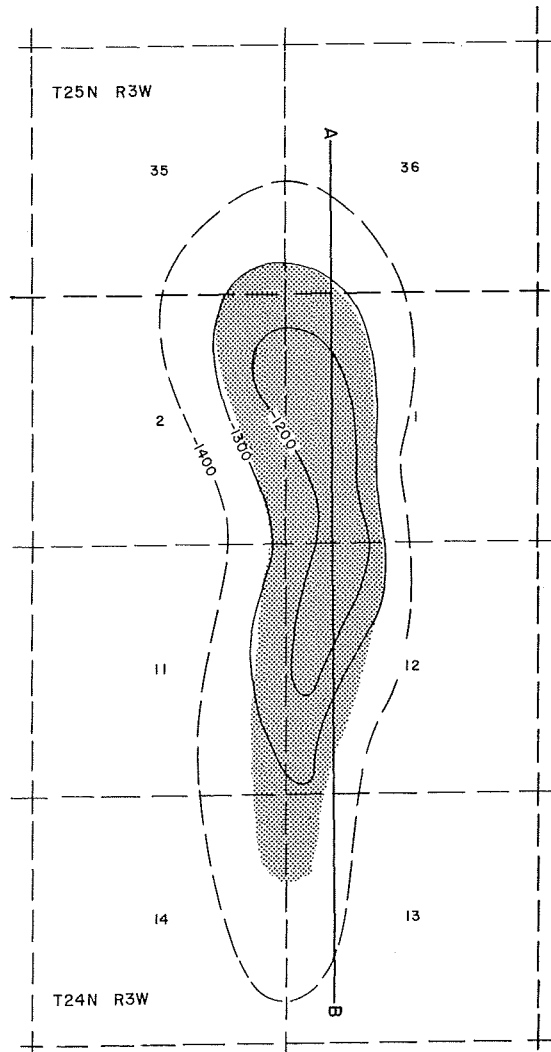
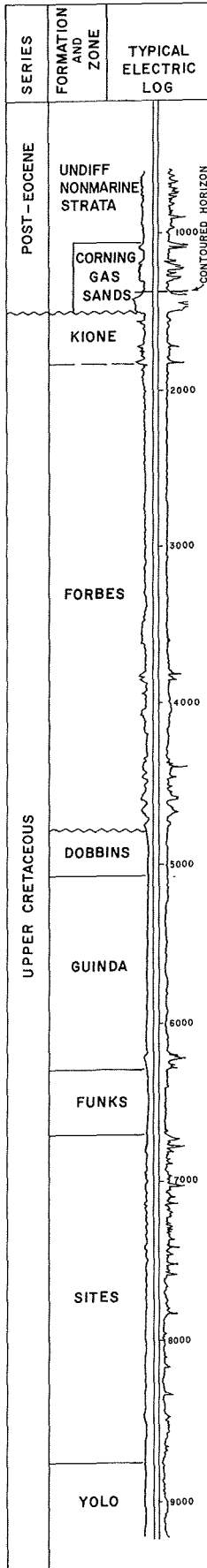
CURRENT CASING PROGRAM: 8 5/8" cem. 500-600; 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in December 1973.

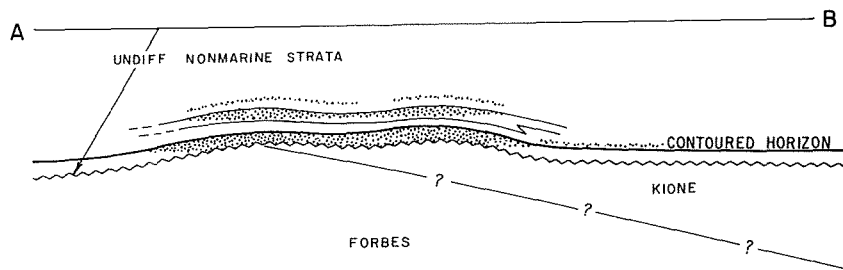
REFERENCES: None

January 1978

CORNING GAS FIELD (Abandoned)



CONTOURS ON TOP OF LOWER GAS SAND



CALIFORNIA DIVISION OF OIL AND GAS

CORNING, SOUTH, GAS FIELD (Abandoned)

Tehama County (Field)
(County)

LOCATION: 2 miles southeast of Corning

ELEVATION: 225

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
A-2 A	Buttes Resources Co. "Saldubehere" A-2 Buttes Resources Co. "Saldubehere - Buttes" A	Buttes Gas & Oil Co. "Saldubehere" A-2 The Buttes Oilfields, Inc. "Saldubehere - Buttes" A	25 24N 3W	MD	2,000	340	1/2	May 1957
			25 24N 3W	MD	1,955	635	3/8	Feb. 1951
A-5	Buttes Resources Co. "Saldubehere" A-5	Buttes Gas & Oil Co. "Saldubehere" A-5	36 24N 3W	MD	2,995	880	3/8	Sep. 1959

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Northern Counties Petroleum Co. "Ewers Mooney" 1	Same	Aug. 1934	25 24N 3W	MD	8,253	Sites	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
A-2	1,185	10	post-Eocene	Undiff. nonmarine strata	870	N.A.	520	III B 2M
A	1,560	15	post-Eocene	Undiff. nonmarine strata	870	N.A.	680	III B 2M
A-5	2,340	20	Late Cretaceous	Kione	940	N.A.	1,010	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	0	0	1,256,799	218,595	1956	10	4	80

SPACING ACT: Applies

BASE OF FRESH WATER: 1,100

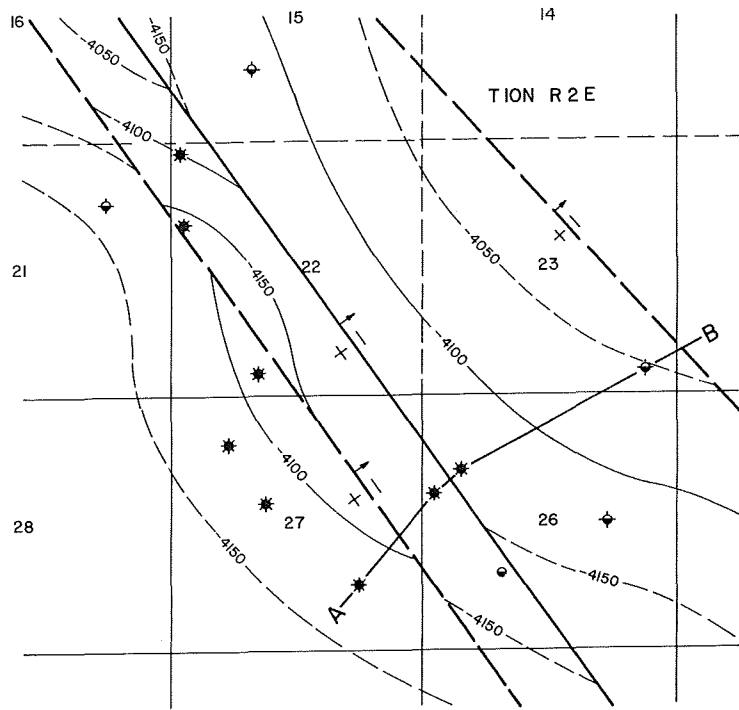
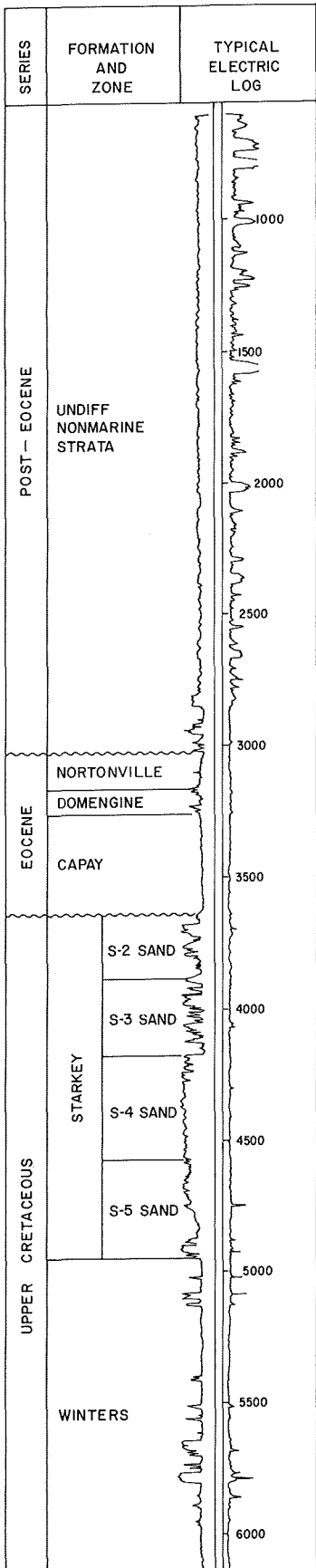
CURRENT CASING PROGRAM: 9 5/8" cem. 500; 5 1/2" cem. through zones and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in July 1954 and ceased in August 1971. The field was abandoned in August 1972.

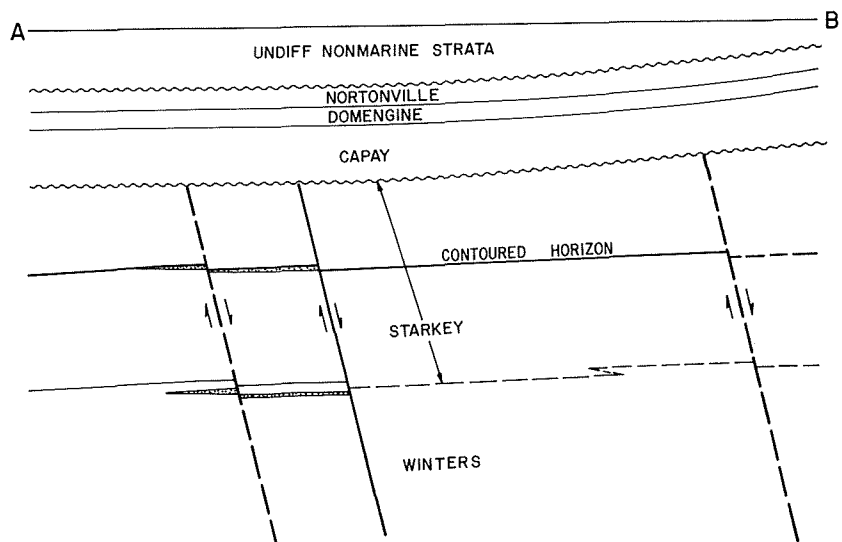
REFERENCES: None

January 1978

CROSSROADS GAS FIELD



CONTOURS ON TOP OF S-4 SAND



CALIFORNIA DIVISION OF OIL AND GAS

CROSSROADS GAS FIELD (Field)
 Yolo County (County)

LOCATION: 2 miles east of Woodland

ELEVATION: 40

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
S-3 (Unnamed)	Chevron U.S.A. Inc. "Amstar" 1 Same	Standard Oil Co. of Calif. "Amstar" 1 Same	22 10N 2E 22 10N 2E	MD MD	2,000 2,600	1,628 1,710	1/2 1/2	May 1976 May 1976

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Chevron U.S.A. Inc. "U.C. Regents" 1	Standard Oil Co. of Calif. "U.C. Regents" 1	Dec. 1976	22 10N 2E	MD	6,154	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
S-3 (Unnamed)	4,150	35	Late Cretaceous	Starkey	N.A.	N.A.	2,050	III B 3M
	4,985	20	Late Cretaceous	Winters	N.A.	N.A.	2,440	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	830	0	0	See Remarks	--	10	8	830

SPACING ACT: Applies

BASE OF FRESH WATER: 2,500

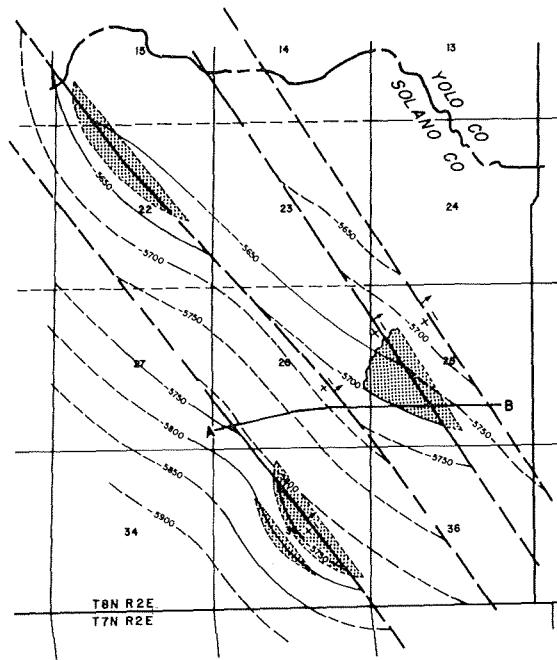
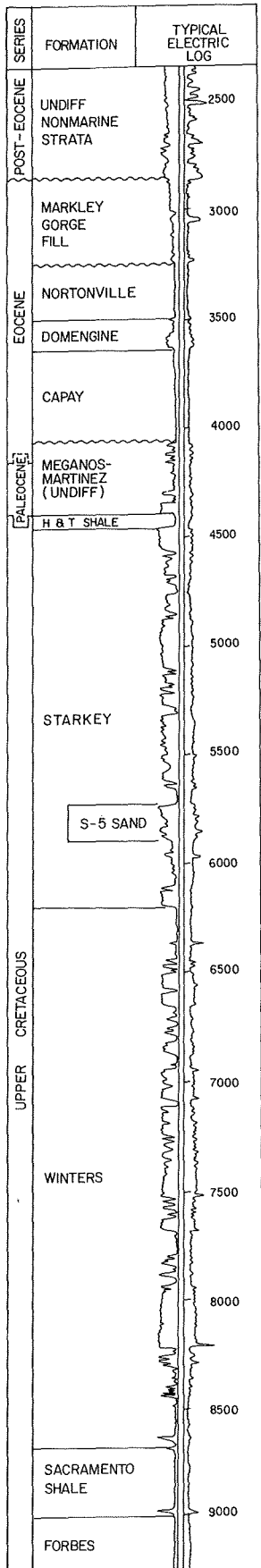
CURRENT CASING PROGRAM: 9 5/8" cem. 1,000; 5 1/2" cem. through zones and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in September 1977.

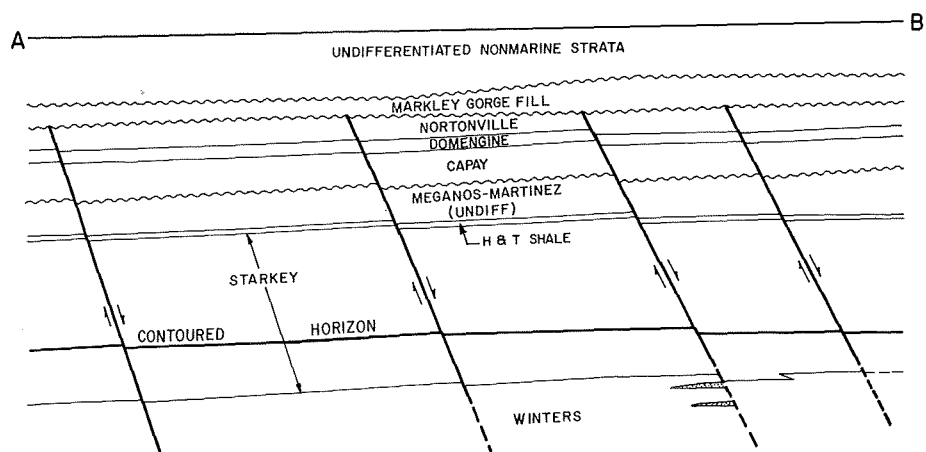
REFERENCES: None

January 1978

DAVIS SOUTHEAST GAS FIELD



CONTOURS ON TOP OF S-5 SAND



CALIFORNIA DIVISION OF OIL AND GAS

DAVIS SOUTHEAST GAS FIELD (Field)
 Solano and Yolo Counties (County)

LOCATION: 2 miles southeast of Davis

ELEVATION: 40

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Anacapa Oil Corp. "Anacapa Jones" 1	Joseph M. Thomas "Anacapa Jones" 1	35 8N 2E	MD	891	N.A.	N.A.	Nov. 1977*
(Unnamed)	Anacapa Oil Corp. "Hamel-Nishi" 1	Same	22 8N 2E	MD	2,010	2,125	1/2	Oct. 1973
(Unnamed)	Phillips Petroleum Co. "Beltrami A" 1	Same	25 8N 2E	MD	6,269	1,780	3/8	Apr. 1965

Remarks: * Date of recompletion; originally completed in the Winters Formation.

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Phillips Petroleum Co. "Beltrami A" 1	Same	Mar. 1965	25 8N 2E	MD	9,207	Forbes	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	3,535	5	Eocene	Domengine	N.A.	N.A.	930	III B 2M
(Unnamed)	6,130	9	Late Cretaceous	Starkey	871	12,670	2,850	III B 3M
(Unnamed)	6,450	15	Late Cretaceous	Winters	925	12,980	2,910	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
161,136	1,806	230	4	1,834,277	432,204	1973	17	5	290

SPACING ACT: Applies

BASE OF FRESH WATER: 2,600-3,100

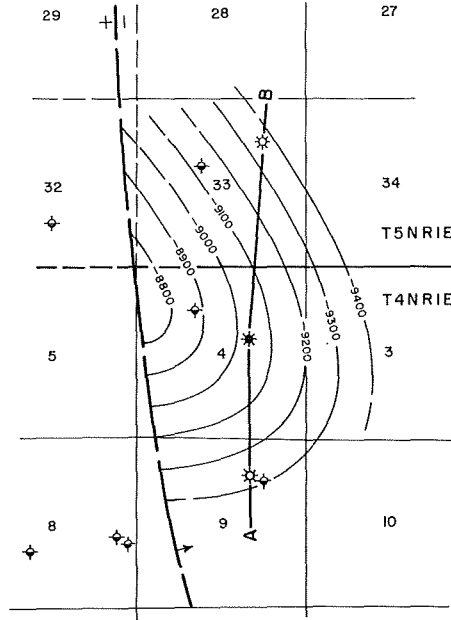
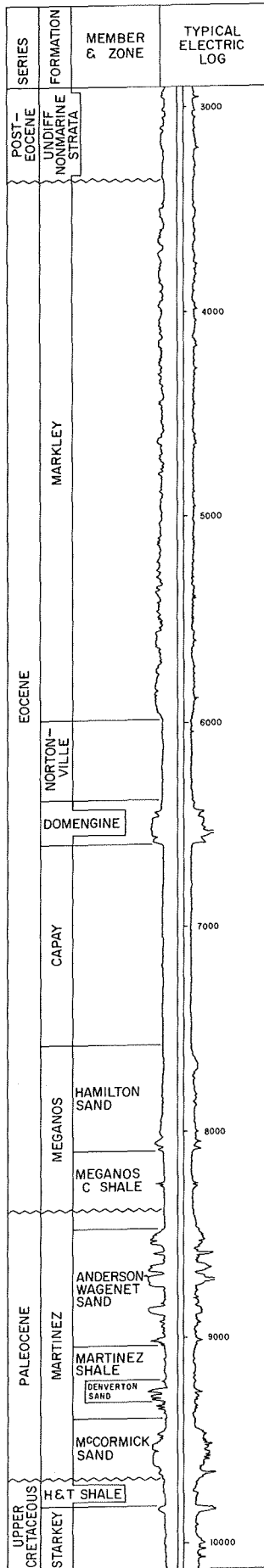
CURRENT CASING PROGRAM: 8 5/8" cem. 700-1,000; 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in December 1966. The field was abandoned in April 1971 and reactivated in July 1972.

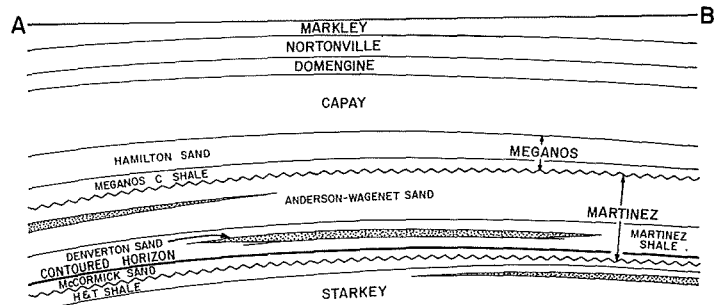
REFERENCES: None

January 1978

DENVERTON CREEK GAS FIELD



CONTOURS ON TOP OF McCORMICK SAND



CALIFORNIA DIVISION OF OIL AND GAS

FREEPORT GAS FIELD (Abandoned) (Field)
 Sacramento County (County)

LOCATION: 9 miles south of Sacramento

ELEVATION: 25

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Sims	Chevron U.S.A. Inc. "Sims Community" 1	Standard Oil Co. of Calif. "Sims Community" 1	19 7N SE	MD	9,784	1,582	1/2	May 1952
(Unnamed)	McCulloch Oil Corp. "McCulloch-Occidental Sims et al" 1	Same	20 7N SE	MD	17,300	1,000	1	May 1962

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Chevron U.S.A. Inc. "Sims Community" 2	Standard Oil Co. of Calif. "Sims Community" 2	Nov. 1952	18 7N SE	MD	9,419	Basement	pre-Lt. Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Sims	5,780	20	Late Cretaceous	Winters	910	N.A.	2,710	III B 3M
(Unnamed)	8,040	50	Late Cretaceous	Guinda (?)	735	22,100	3,600	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (tbb)				(Mcf)	Year	Drilled	Completed	
29,838	38	0	0	2,646,870	614,927	1953	6	2	120

SPACING ACT: Applies

BASE OF FRESH WATER: 650-1,450

CURRENT CASING PROGRAM: 9 5/8" cem. 900; 5 1/2" cem. through zone and across base of freshwater sands.

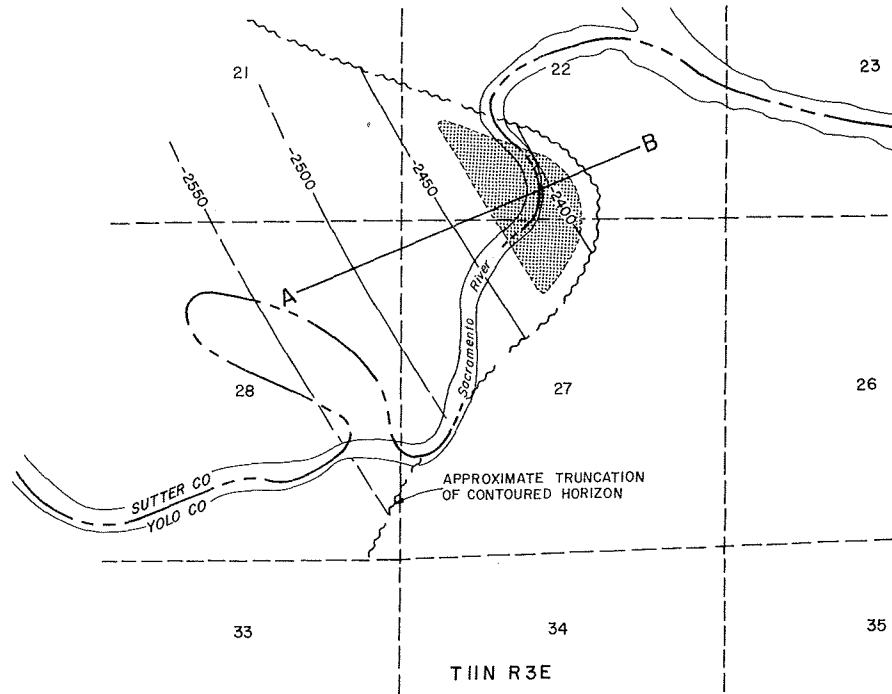
REMARKS: Commercial gas deliveries began in January 1953. The field was abandoned in 1977.

REFERENCES: None

January 1978

FREMONT LANDING GAS FIELD

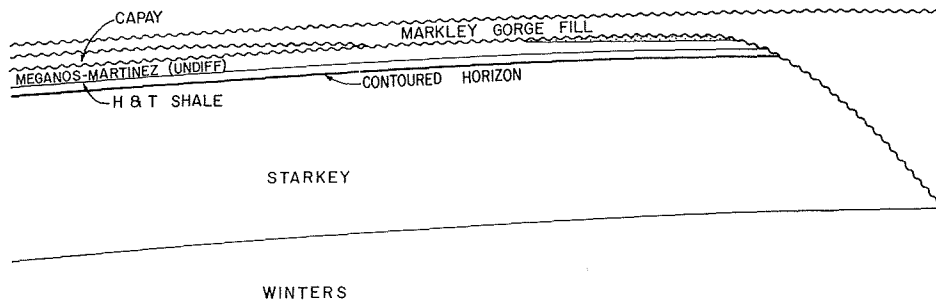
SERIES	FORMATION	TYPICAL ELECTRIC LOG
POST EOCENE	UNDIFF NONMARINE STRATA	
PALEO EOCENE	MARKLEY GORGE FILL	
	MEGANOS-MARTINEZ (UNDIFF)	
	H & T SHALE	
UPPER CRETACEOUS	STARKEY	
	WINTERS	



CONTOURS ON BASE OF H & T SHALE

A-----B

UNDIFFERENTIATED NONMARINE STRATA



CALIFORNIA DIVISION OF OIL AND GAS

FREMONT LANDING GAS FIELD (Field)
 Yolo County (County)

LOCATION: 10 miles northeast of Woodland

ELEVATION: 25

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	B. Pete Jackson "Deseret Farms" 2	Same	22 11N 3E	MD	1,000	900	N.A.	Oct. 1976

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Centura Inc. "Deseret Farms" 3	Same	Nov. 1977	27 11N 3E	MD	4,500	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,320	25	Eocene-Paleocene	Meganos-Martinez	N.A.	N.A.	1,000	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	40	0	0	See Remarks	--	2	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,400

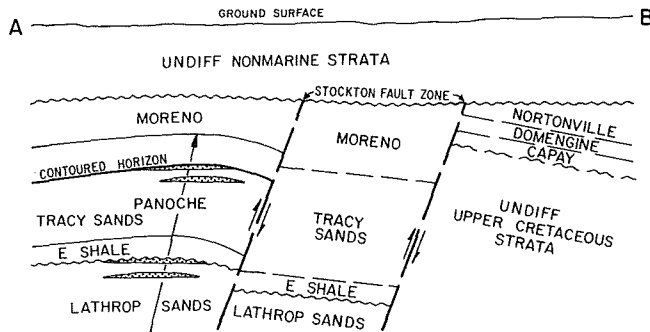
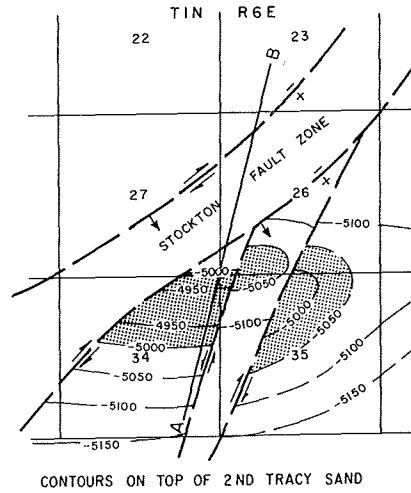
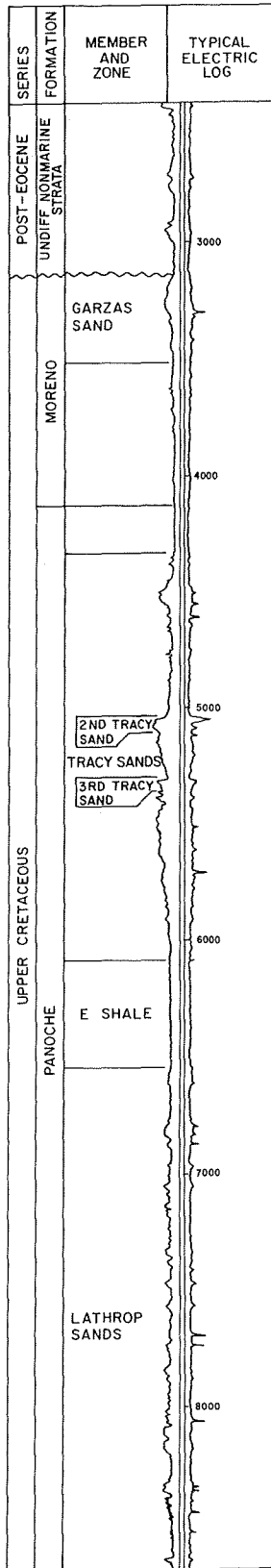
CURRENT CASING PROGRAM: 8 5/8" cem. 500; 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries have not yet begun.

REFERENCES: None

January 1978

FRENCH CAMP GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

FREMONT LANDING GAS FIELD (Field)
 Yolo County (County)

LOCATION: 10 miles northeast of Woodland
 ELEVATION: 25

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	B. Pete Jackson "Deseret Farms" 2	Same	22 11N 3E	MD	1,000	900	N.A.	Oct. 1976

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Centura Inc. "Deseret Farms" 3	Same	Nov. 1977	27 11N 3E	MD	4,500	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,320	25	Eocene-Paleocene	Meganos-Martinez	N.A.	N.A.	1,000	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	40	0	0	See Remarks	--	2	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,400

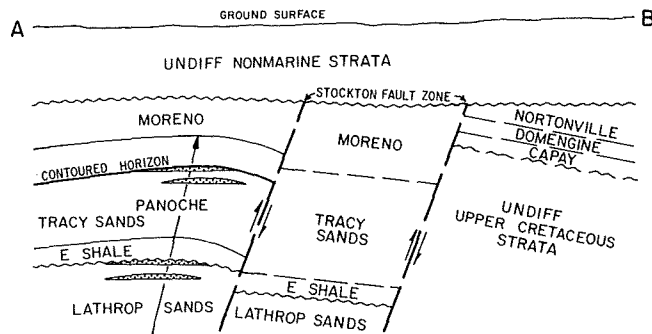
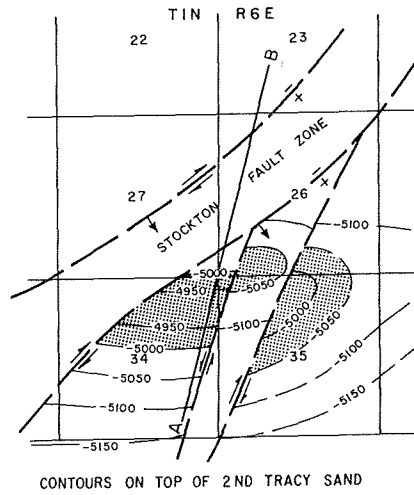
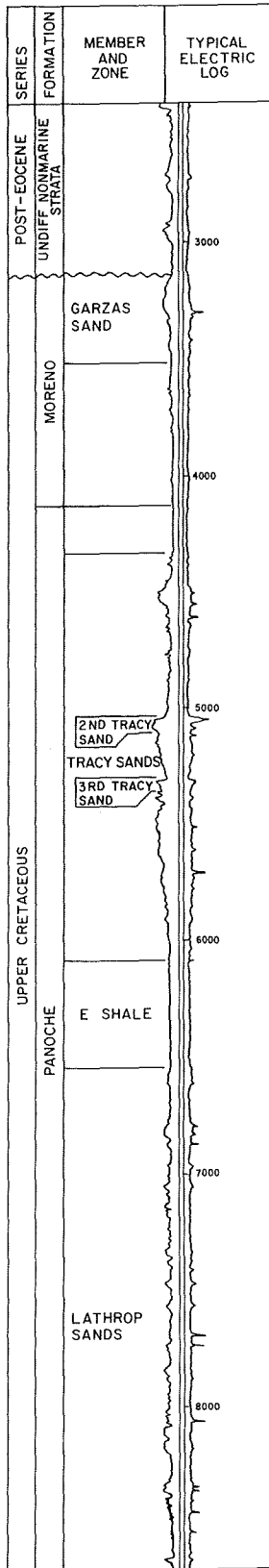
CURRENT CASING PROGRAM: 8 5/8" cem. 500; 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries have not yet begun.

REFERENCES: None

January 1978

FRENCH CAMP GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

HOSPITAL NOSE GAS FIELD (Abandoned) (Field)
Alameda County (County)

LOCATION: 3 miles southeast of Livermore

ELEVATION: 895

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Wente	Texaco Inc. "Hancock-Signal (NCT-1) Wente" 1	The Texas Co. "Hancock-Signal (NCT-1) Wente" 1	27 3S 2E	MD	150	500	1/8	Apr. 1952

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Same as discovery well	Same	Feb. 1952	27 3S 2E	MD	7,062	Panoche	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Wente	5,070	110	Late Cretaceous	Panoche	1,285	514	1,610	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	0	0	14,183	9,424	1954	2	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,500

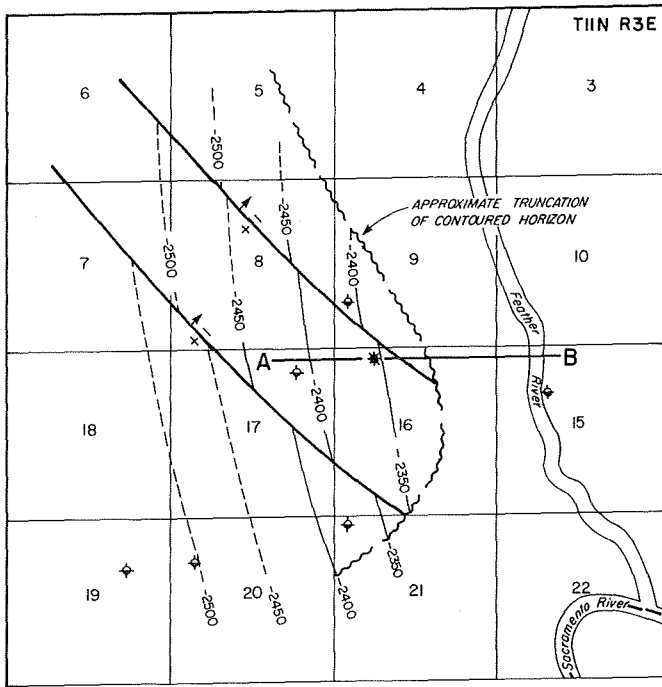
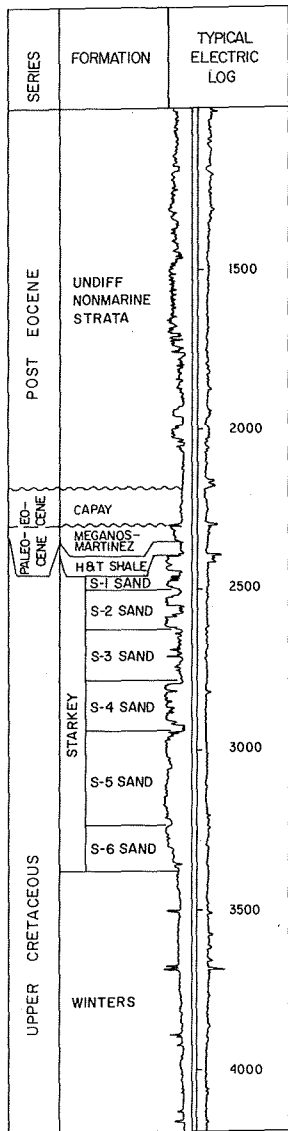
CURRENT CASING PROGRAM: 11 3/4" cem. 500; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in November 1952. The field was abandoned in June 1956.

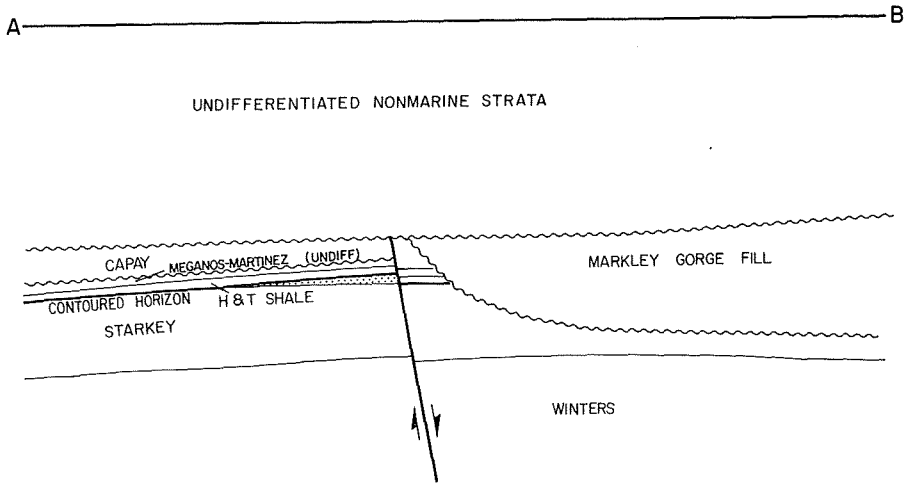
REFERENCES: None

January 1978

KARNAK GAS FIELD



CONTOURS ON TOP OF STARKEY



CALIFORNIA DIVISION OF OIL AND GAS

HOSPITAL NOSE GAS FIELD (Abandoned) (Field)
 Alameda County (County)

LOCATION: 3 miles southeast of Livermore

ELEVATION: 895

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Wente	Texaco Inc. "Hancock-Signal (NCT-1) Wente" 1	The Texas Co. "Hancock-Signal (NCT-1) Wente" 1	27 3S 2E	MD	150	500	1/8	Apr. 1952

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Same as discovery well	Same	Feb. 1952	27 3S 2E	MD	7,062	Panoche	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Wente	5,070	110	Late Cretaceous	Panoche	1,285	514	1,610	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	0	0	14,183	9,424	1954	2	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,500

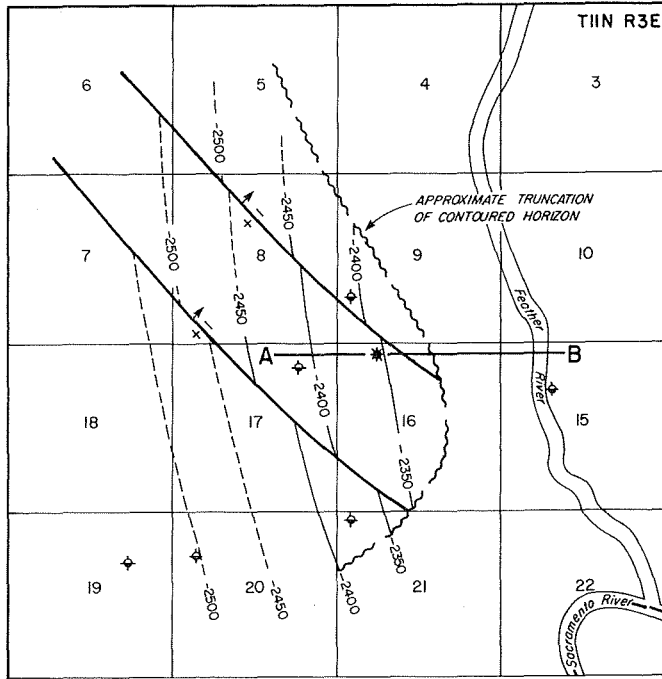
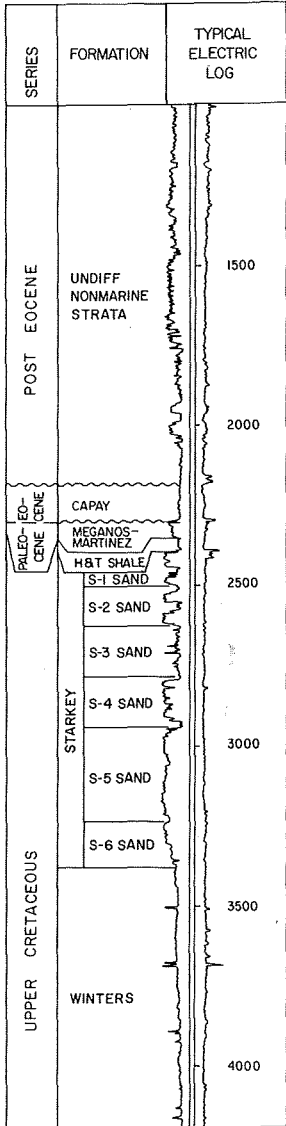
CURRENT CASING PROGRAM: 11 3/4" cem. 500; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in November 1952. The field was abandoned in June 1956.

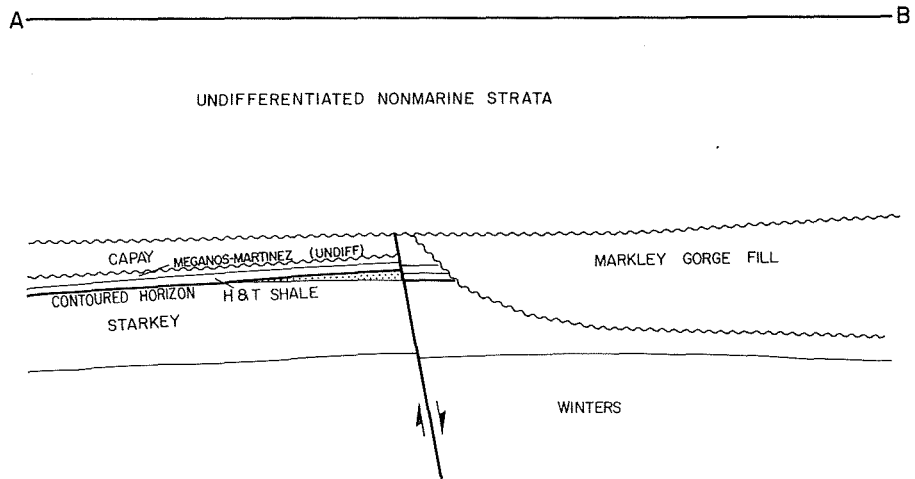
REFERENCES: None

January 1978

KARNAK GAS FIELD



CONTOURS ON TOP OF STARKEY



CALIFORNIA DIVISION OF OIL AND GAS

KARNAK GAS FIELD (Field)
Sutter County (County)

LOCATION: 3 miles east of Knights Landing

ELEVATION: 23

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
S-1	The Dow Chemical Co. "Anderson Farms" 1	Same	16 11N 3E	MD	1,400	940	16/64	Aug. 1976

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
The Dow Chemical Co. "Anderson Farms" 1	Same	July 1976	16 11N 3E	MD	4,232	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
S-1	2,400	15	Late Cretaceous	Starkey	831	N.A.	1,060	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1972 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	40	0	0	See Remarks	--	2	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,000

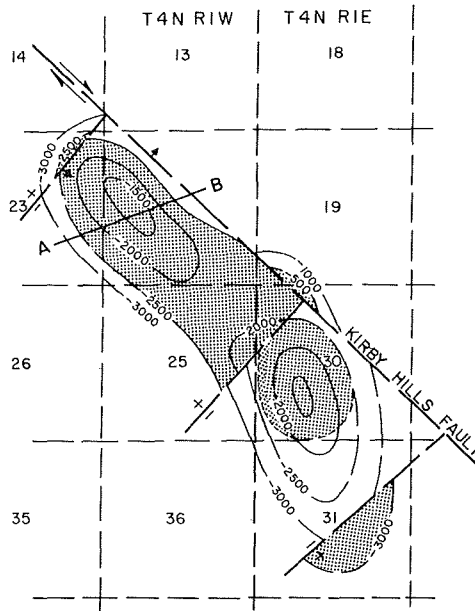
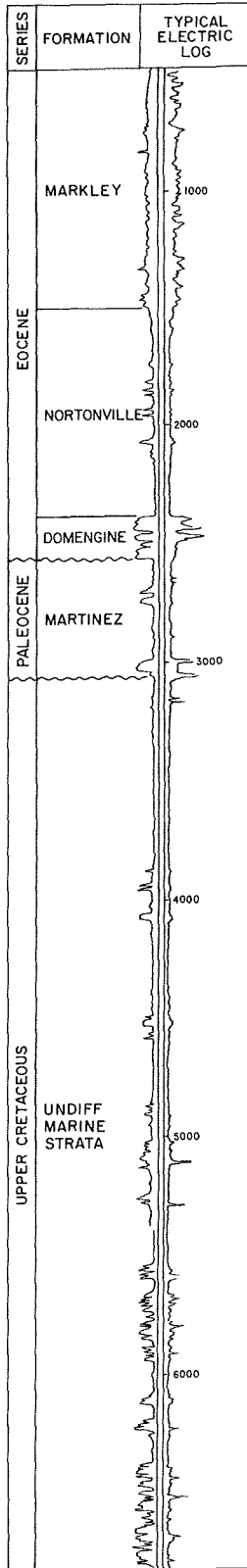
CURRENT CASING PROGRAM: 7" cem. 500; 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries have not yet begun.

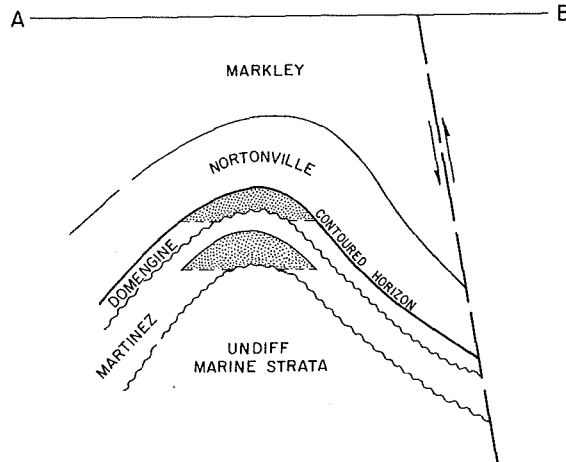
REFERENCES: None

January 1978

KIRBY HILL GAS FIELD



CONTOURS ON TOP OF DOMENGINE



CALIFORNIA DIVISION OF OIL AND GAS

ORD BEND GAS FIELD (Field)
Glenn County (County)

LOCATION: 11 miles southwest of Chico

ELEVATION: 155

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Knight	The Superior Oil Co. "Knight" 1	Same	13 21N 2W	MD	5,040	1,075	24/64	Aug. 1943

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
The Superior Oil Co. "Knight" 1	Same	July 1943	13 21N 2W	MD	6,346	Guinda	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Knight	3,660	13	Late Cretaceous	Kione	910	15,400	1,615	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
59,790	25,130	240	1	9,828,552	1,034,566	1947	3	2	300

SPACING ACT: Applies

BASE OF FRESH WATER: 1,200

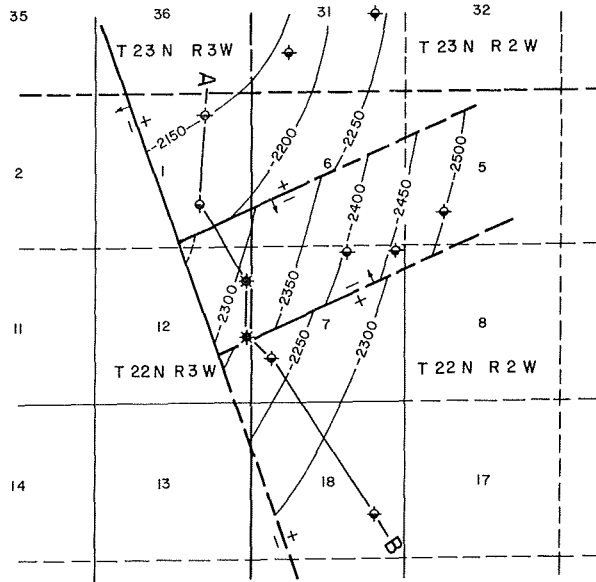
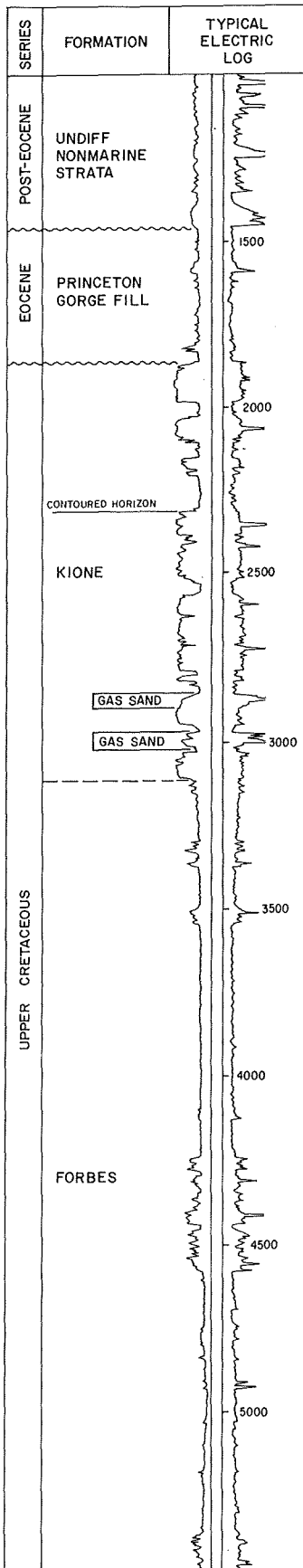
CURRENT CASING PROGRAM: 9 5/8" cem. 500, 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in January 1945.

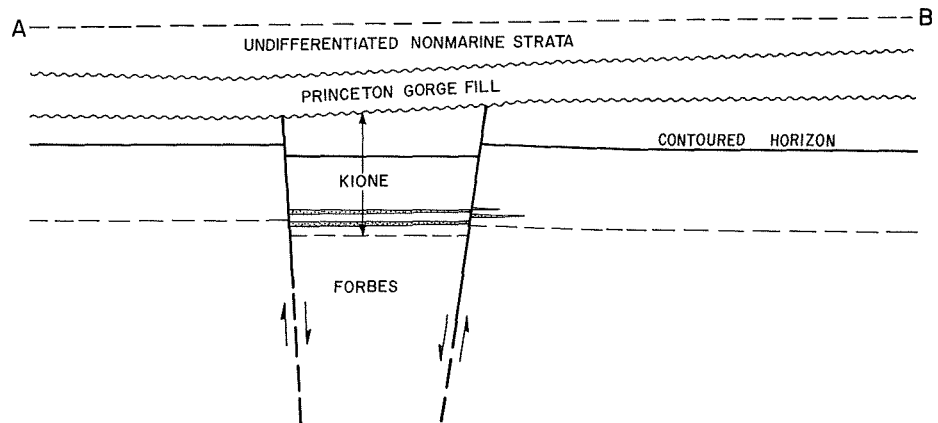
REFERENCES: None

January 1978

ORLAND GAS FIELD



CONTOURS ON KIONE MARKER



CALIFORNIA DIVISION OF OIL AND GAS

ORLAND GAS FIELD (Field)
Glenn County (County)

LOCATION: 3 miles northeast of Orland
ELEVATION: 220

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Oxy Petroleum, Inc. "Morrissey" 1-12	Same	12 22N 3W	MD	1,300	1,150	16/64	May 1975
(Unnamed)	Same	Same	12 22N 3W	MD	1,160	1,260	16/64	May 1975

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Oxy Petroleum, Inc. "Morrissey" 1-12	Same	Apr. 1975	12 22N 3W	MD	5,711	Forbes	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,880	10	Late Cretaceous	Kione	925	84,000	1,350	III B 2M
(Unnamed)	3,010	20	Late Cretaceous	Kione	928	N.A.	1,400	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	100	0	0	See Remarks	--	4	2	100

SPACING ACT: Applies

BASE OF FRESH WATER: 1,700

CURRENT CASING PROGRAM: 8 5/8" cem. 800; 5 1/2" cem. through zone and across base of freshwater sands.

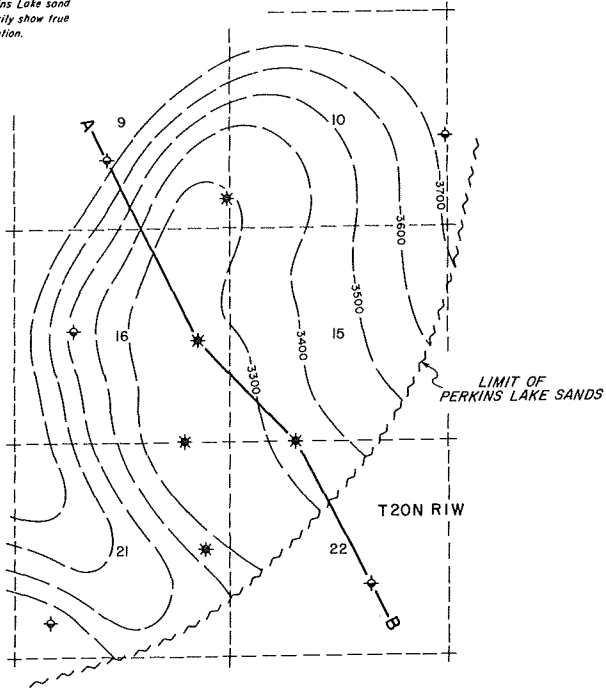
REMARKS: Commercial gas deliveries have not yet begun.

REFERENCES: None

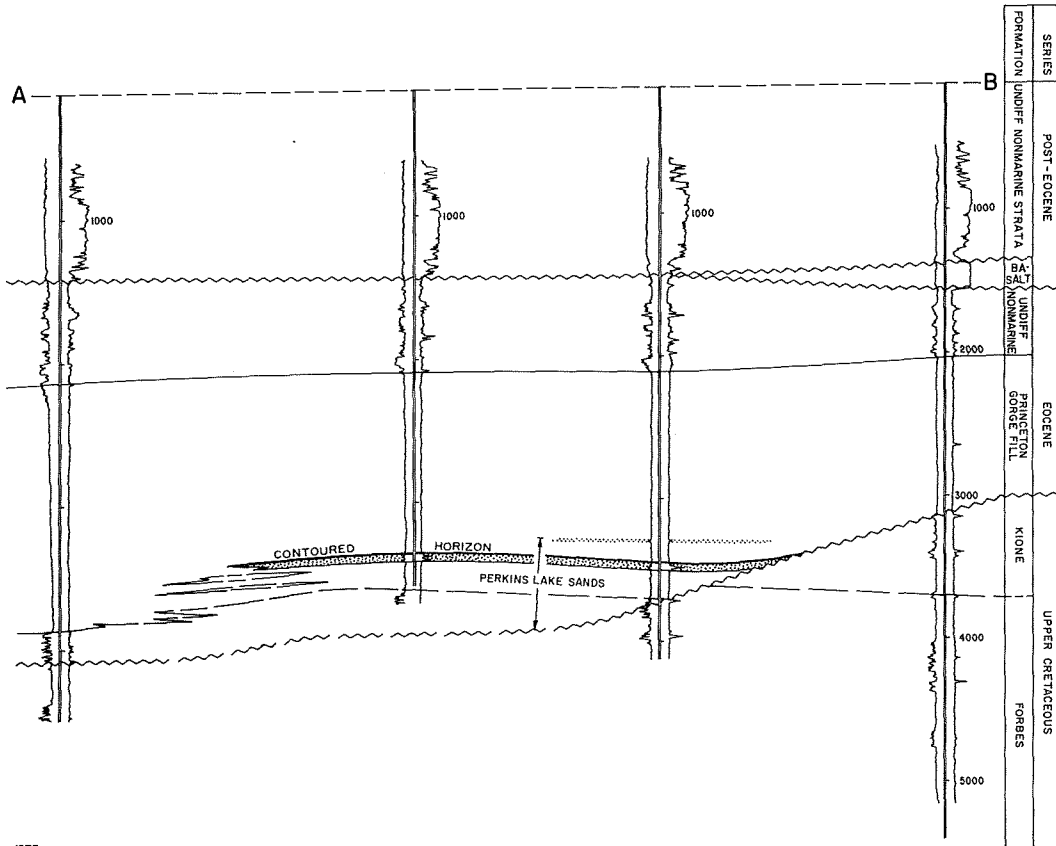
January 1978

PERKINS LAKE GAS FIELD

NOTE: Contours are on first significant occurrence of Perkins Lake sand and do not necessarily show true structural configuration.



CONTOURS ON TOP OF PERKINS LAKE SANDS



CALIFORNIA DIVISION OF OIL AND GAS

PRINCETON GAS FIELD (Field)
Colusa County (County)

LOCATION: 12 miles north of Colusa
ELEVATION: 70

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Wild Goose	Rheem Calif. Land Co. "Southam" 1	Richard S. Rheem, Opr. "Southam" 1	25 18N 2W	MD	2,850	940	3/8	Dec. 1953

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Intex Oil Co. "Capitol" 1-30	Same	July 1966	30 18N 1W	MD	7,703	Dobbins	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Wild Goose	2,170	110	Late Cretaceous	Kione	980	N.A.	1,015	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
91,143	0	290	5	9,036,228	881,744	1956	14	4	320

SPACING ACT: Applies

BASE OF FRESH WATER: 1,800

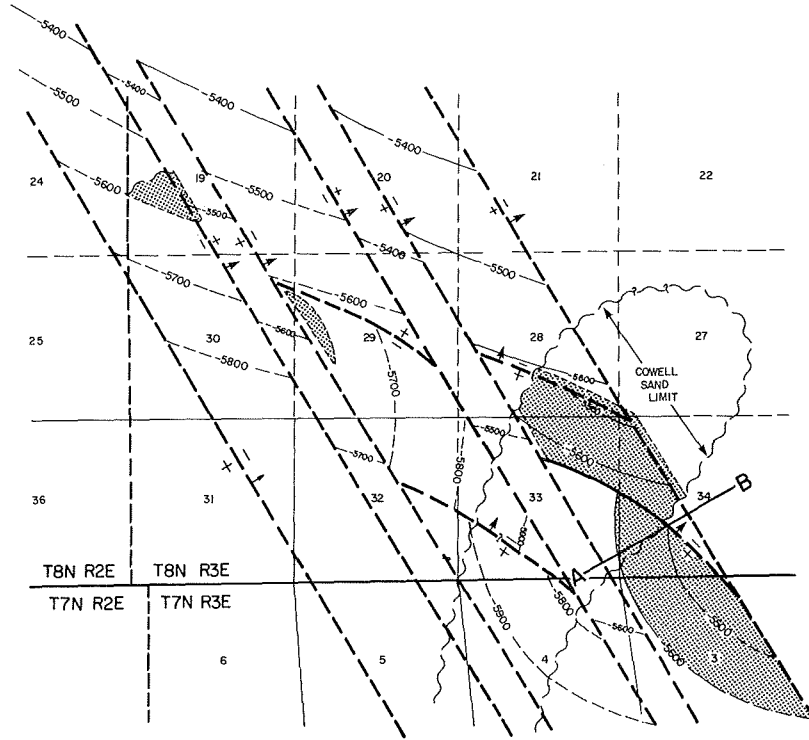
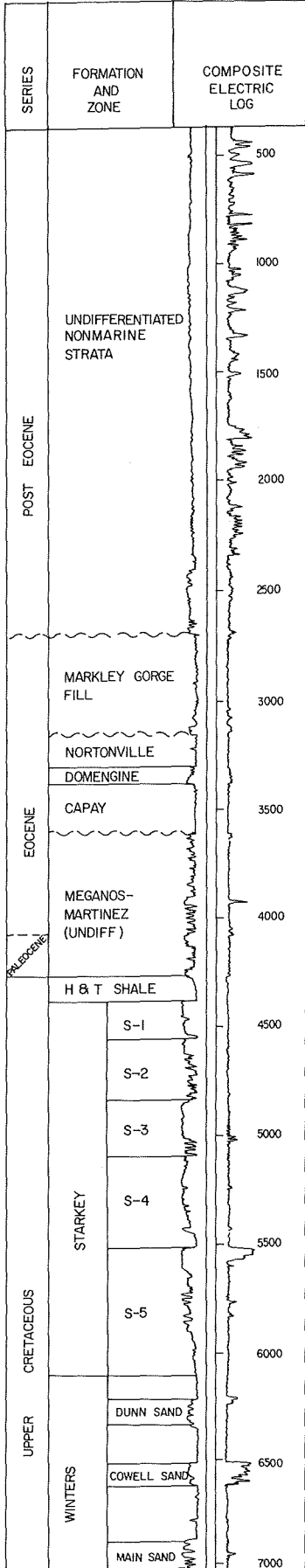
CURRENT CASING PROGRAM: 10 3/4" cem. 650; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in August 1955.

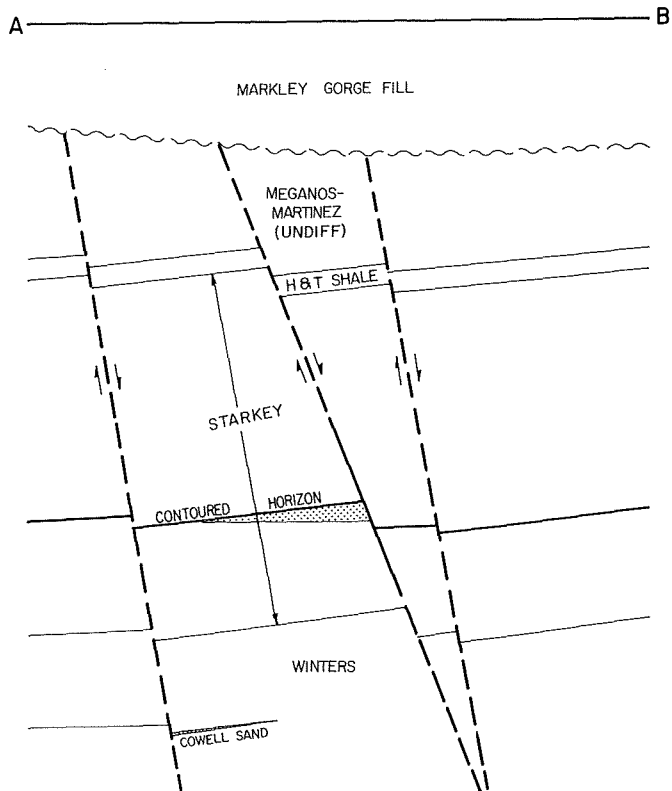
REFERENCES: Bruce, Donald D., Princeton Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 45, No. 1 (1959).

January 1978

PUTAH SINK GAS FIELD



CONTOURS ON TOP OF S-5 SAND



CALIFORNIA DIVISION OF OIL AND GAS

PUTAH SINK GAS FIELD (Field)
 Yolo County (County)

LOCATION: 5 miles southeast of Davis

ELEVATION: 26

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
S-4 Dunn	Shell Oil Co. "Glide" 1-3	Same	3 7N 3E	MD	2,080	2,050	N.A.	Nov. 1973
	Anacapa Oil Corp. "Sumpf-Williams-Dunn" 1	Same	29 8N 3E	MD	1,600	2,050	1/2	Apr. 1974
Cowell	Shell Oil Co. "Shoshone Cowell" 1	Same	34 8N 3E	MD	970	2,550	28/64	June 1973

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Shell Oil Co. "Cowell Glide A" 1-33	Same	Jan. 1974	33 8N 3E	MD	7,545	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
S-4	5,550	50	Late Cretaceous	Starkey	900	N.A.	2,420	III B 3M
Dunn	6,210	20	Late Cretaceous	Winters	890	N.A.	2,710	III B 3M
Cowell	6,500	60	Late Cretaceous	Winters	910	N.A.	2,995	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
3,875,386	10	720	8	7,408,083	3,875,386	1976	13	9	720

SPACING ACT: Applies

BASE OF FRESH WATER: 2,000-2,500

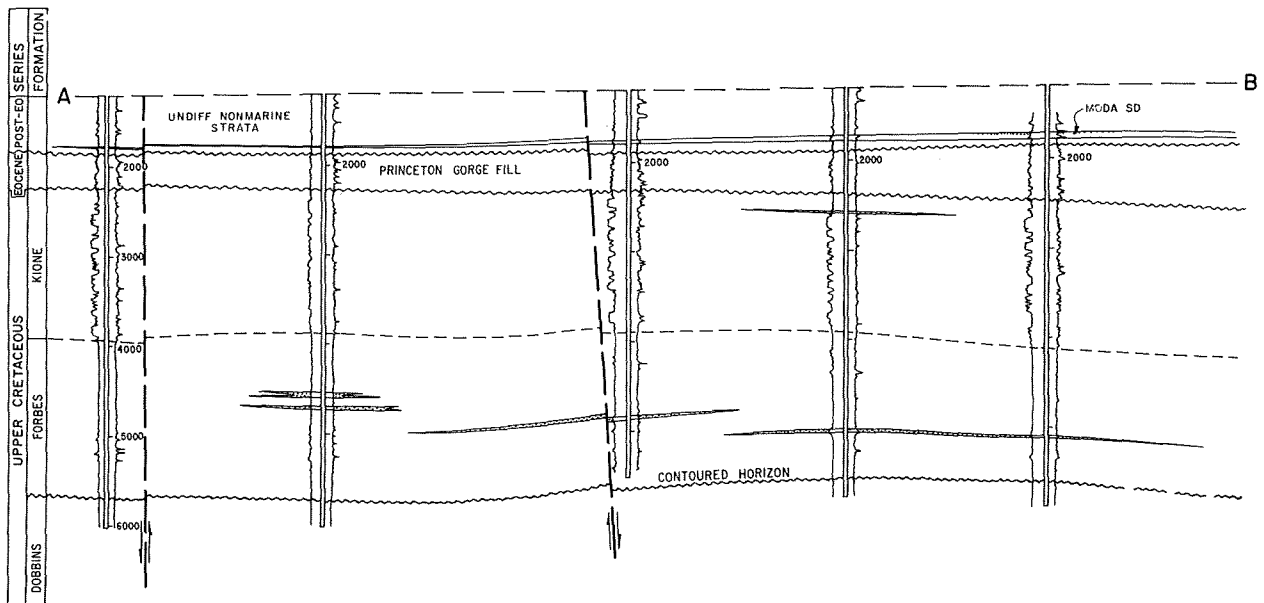
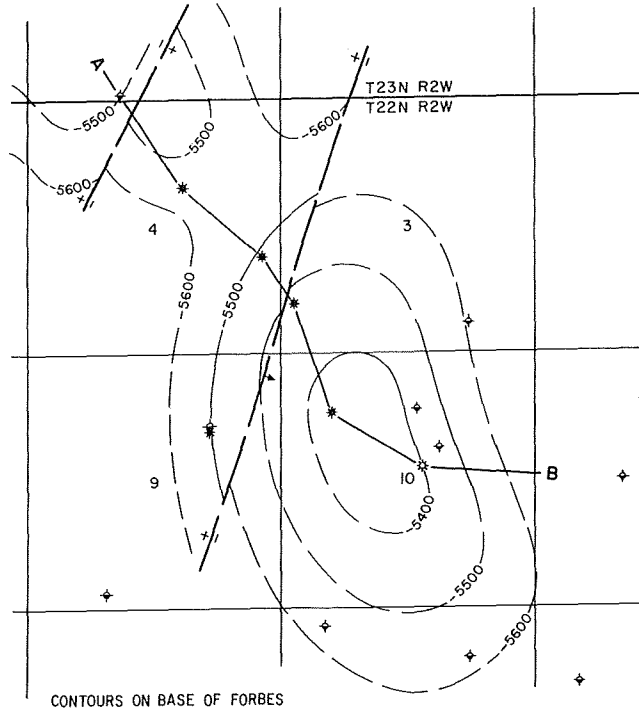
CURRENT CASING PROGRAM: 8 5/8" cem. 1,000-1,500; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in December 1974.

REFERENCES: None

January 1978

RANCHO CAPAY GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

RICE CREEK GAS FIELD (Field)
Tehama County (County)

LOCATION: 5 miles northeast of Orland

ELEVATION: 250

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed sand stringers)	McCulloch Oil & Gas Corp. "Nellie P. Walker Unit" 2	Sunray DX Oil Co. "Nellie P. Walker Unit" 2	24 23N 3W	MD	*3,385 1,400 1,330	970 880 835	3/8 1/4 1/4	May 1964
(Unnamed sand stringers)	Sun Oil Co. "George S. Reid Unit" 1	Sunray DX Oil Co. "George S. Reid Unit" 1	13 23N 3W	MD	3,230	1,290	5/16	May 1963

Remarks: * Triple completion (three strings of 2 7/8" tubing cemented in hole).

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Sun Oil Co. "Victor Ranch" 4	Sunray DX Oil Co. "Victor Ranch" 4	May 1965	7 23N 2W	MD	12,175	Venado	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed sand stringers)	2,000-2,660	5-40 per stringer	Late Cretaceous	Kione	870-965	10,100	970-1,270	III B 2H
(Unnamed sand stringers)	4,250-5,500	5-30 per stringer	Late Cretaceous	Forbes	988-1,016	16,600-23,800	2,260-3,140	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1977 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
973,537	10,047	2,720	16	18,854,377	2,637,249	1967	32	19	2,800

SPACING ACT: Applies

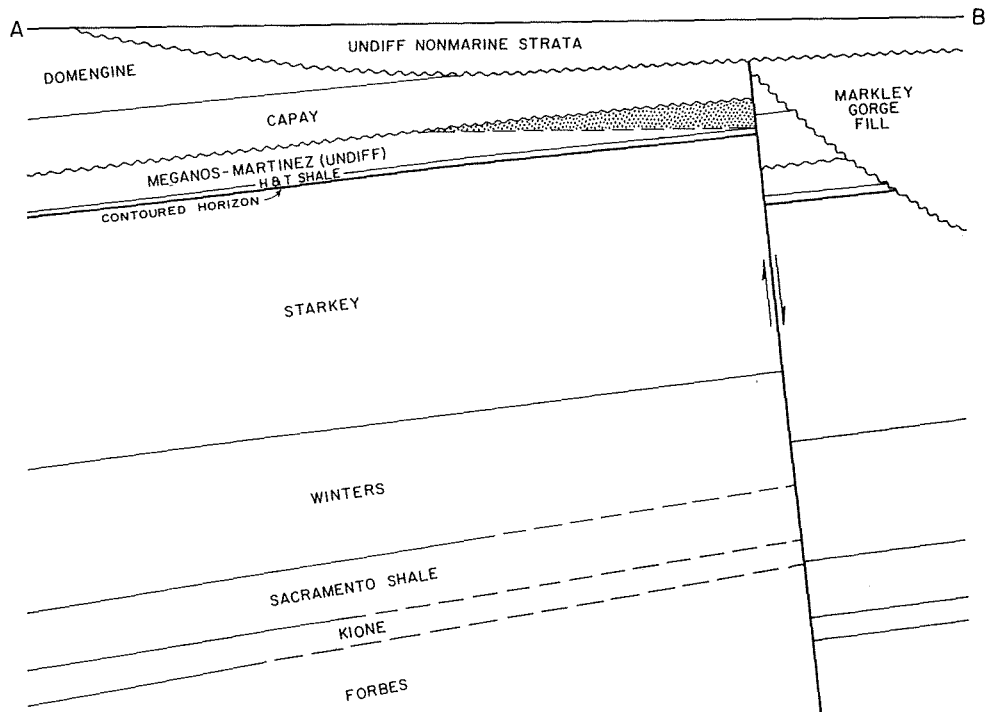
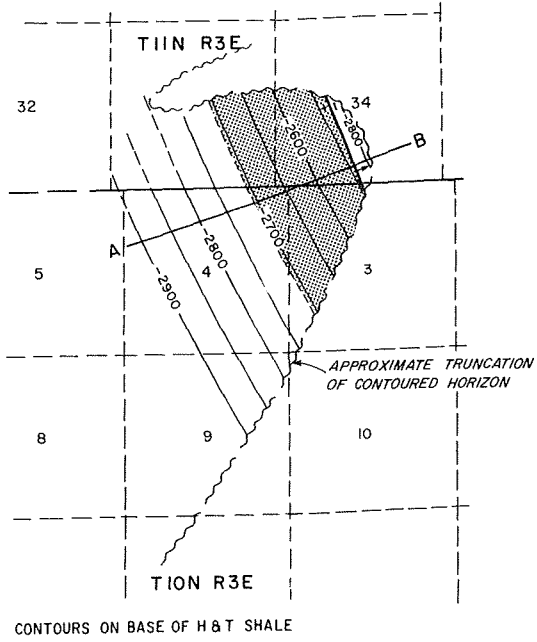
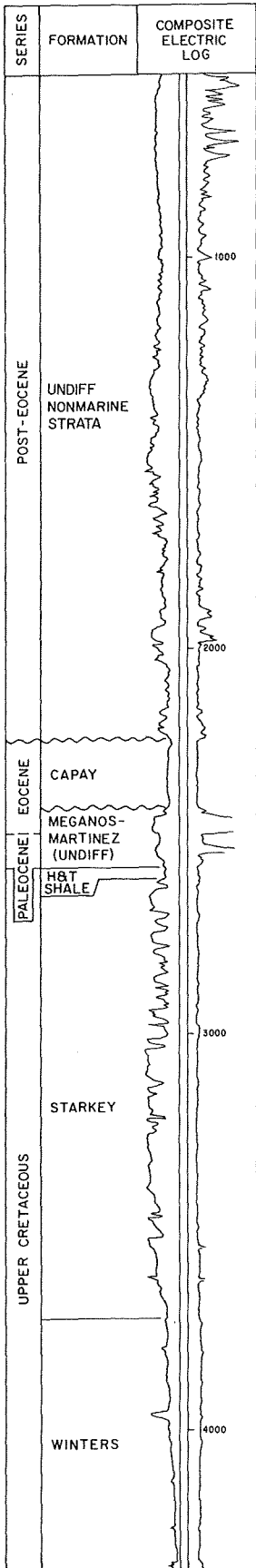
BASE OF FRESH WATER: 1,450-1,700

CURRENT CASING PROGRAM: Kione Formation: 9 5/8" cem. 600; 4 1/2" cem. through gas zones and across base of freshwater sands.
Forbes Formation: 9 5/8" cem. 1,100; 4 1/2" cem. through gas zones and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in May 1964.

REFERENCES: Hill, F. L., Rice Creek Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 56, No. 1 (1970).

RIO JESUS GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

RIO JESUS GAS FIELD (Field)
 Yolo County (County)

LOCATION: 10 miles northeast of Woodland

ELEVATION: 20

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Shell Oil Co. "Jesus-Maria" 1	Same	4 10N 3E	MD	3,394	915	24/64	July 1972

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Shell Oil Co. "Jesus-Maria" 1	Same	June 1972	4 10N 3E	MD	4,504	Sacramento Shale	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,470	50	Eocene-Paleocene	Meganos-Martinez	864-884	N.A.	1,275	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	160	0	0	See Remarks	--	3	3	160

SPACING ACT: Applies

BASE OF FRESH WATER: 1,000

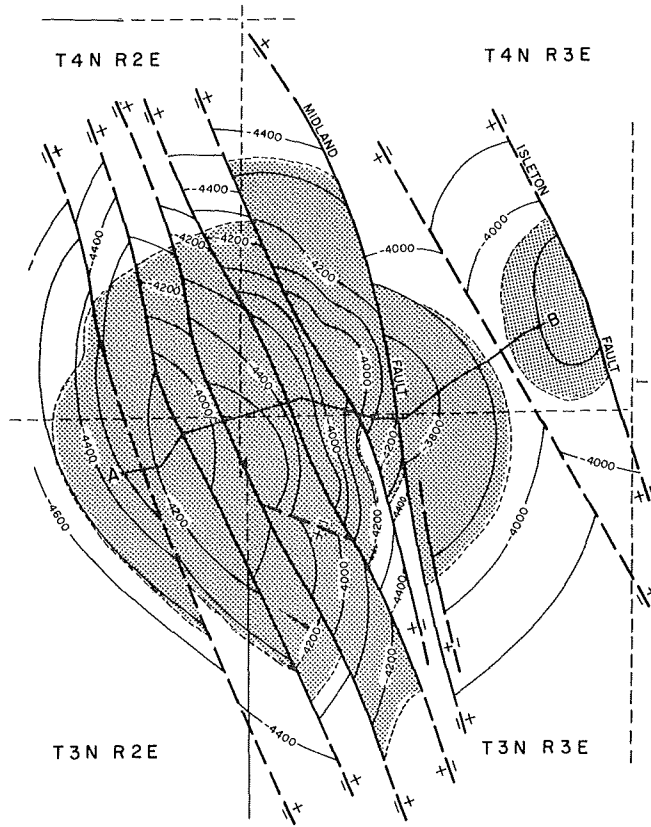
CURRENT CASING PROGRAM: 8 5/8" or 7" cem. 500; 5 1/2" or 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in January 1977.

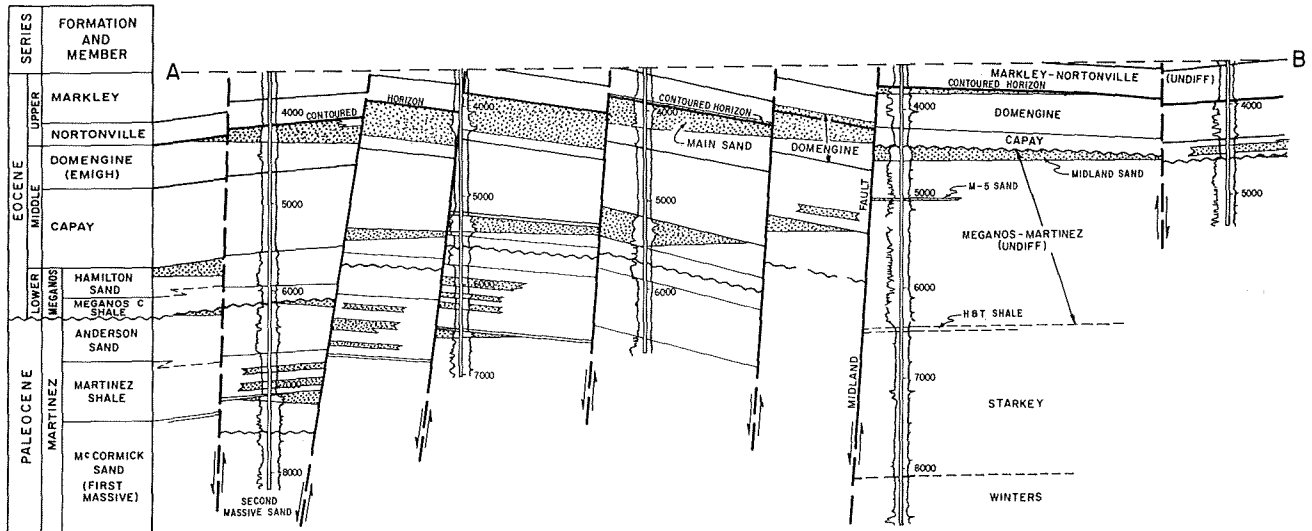
REFERENCES: None

January 1978

RIO VISTA GAS FIELD



CONTOURS ON TOP OF DOMENGINE MAIN SAND



CALIFORNIA DIVISION OF OIL AND GAS

RYER ISLAND GAS FIELD (Field)
Solano County (County)

LOCATION: 3 miles north of Port Chicago

ELEVATION: Sea level

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Suisun	Chevron U.S.A. Inc. "Ryer" 1	Standard Oil Co. of Calif. "S.O. Opr.-Ryer" 1	30 3N 1W	MD	3,875	1,305	1/2	July 1967
Domengine	Same	Same	30 3N 1W	MD	11,545	1,725	1/2	July 1967

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Chevron U.S.A. Inc. "Ryer" 1	Standard Oil Co. of Calif. "S.O. Opr.-Ryer" 1	Aug. 1966	30 3N 1W	MD	8,942	Martinez	Paleocene

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Suisun	4,470	60	Eocene	Nortonville	1,070	N.A.	2,410	III B 3M
Domengine	4,750	200	Eocene	Domengine	1,100	N.A.	2,405	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
8,318,372	2,835	400	5	86,536,658	13,437,832	1973	8	7	400

SPACING ACT: Applies

BASE OF FRESH WATER: 1,100

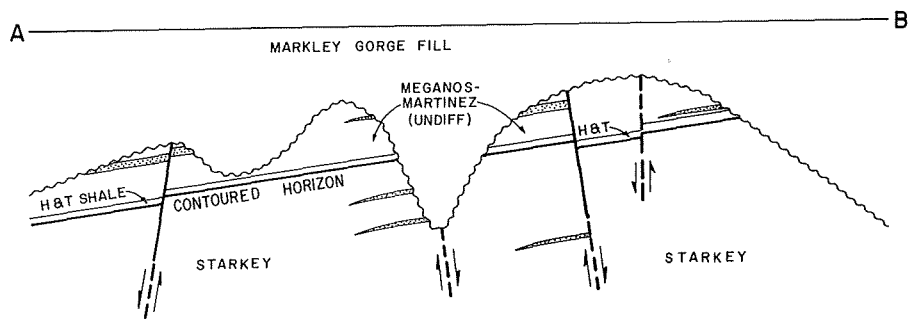
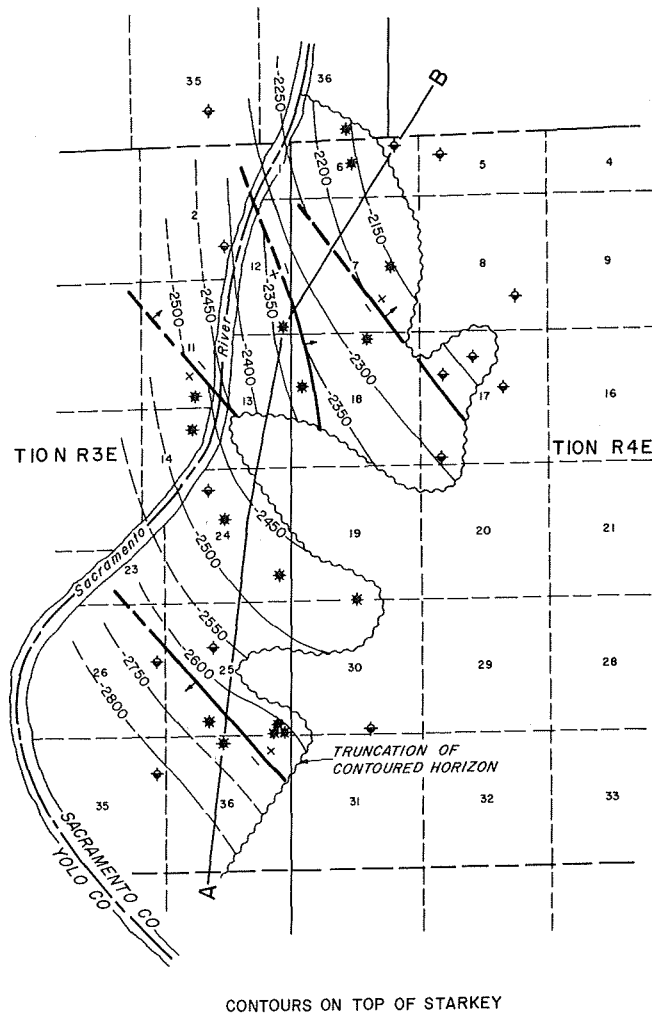
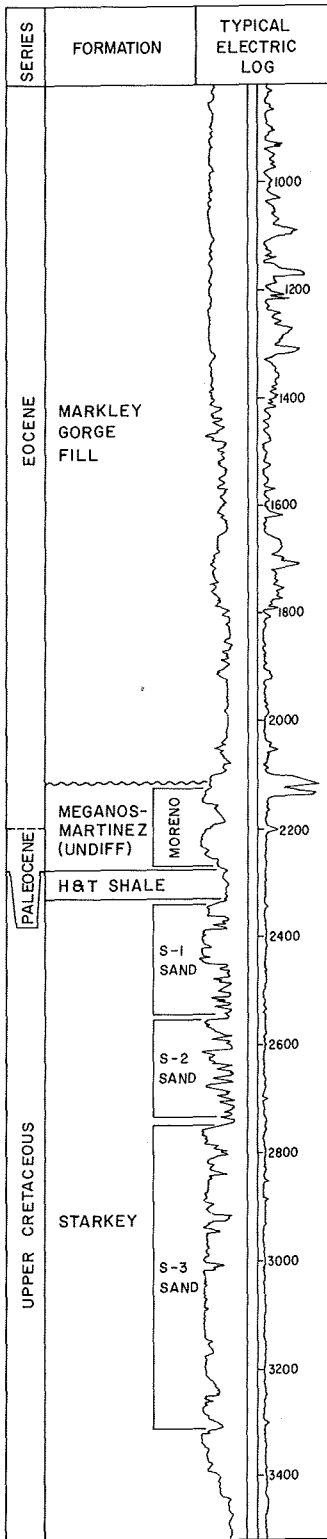
CURRENT CASING PROGRAM: 22" to 14" driven or cem. 40-300; 10 3/4" cem. 1,100-1,500; 7" or 5 1/2" cem. through zone.

REMARKS: The wells are directionally drilled, with two producing wells on two platforms and three producing wells on Ryer Island. Commercial gas deliveries began in October 1968. 1976 condensate production 9,739 bbl; cumulative condensate production 118,139 bbl.

REFERENCES: None

January 1978

SACRAMENTO AIRPORT GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

SACRAMENTO AIRPORT GAS FIELD (Field)
 Sacramento, Sutter, and Yolo Counties (County)

LOCATION: 10 miles northwest of Sacramento

ELEVATION: 20

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Moreno	Shell Oil Co. "Silva-Betts" 1-25	Same	25 10N 3E	MD	235	1,000	N.A.	Nov. 1973
S-1	Shell Oil Co. "Sacramento Airport" 1-19	Same	19 10N 4E	MD	195	1,080	N.A.	Nov. 1974
S-2	Shell Oil Co. "Sacramento Airport" 1-30	Same	25 10N 3E	MD	210	1,180	N.A.	May 1974
S-3	Shell Oil Co. "Sacramento Airport" 2-24	Same	24 10N 3E	MD	170	1,250	N.A.	Jan. 1974

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Buttes Resources Co. "Natomas" 3	Buttes Gas and Oil Co. "Natomas" 3	July 1961	6 10N 4E	MD	4,500	Forbes	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Moreno	2,200	23	Eocene-Paleocene	Meganos-Martinez	851	N.A.	1,080	III B 2M
S-1	2,600	12	Late Cretaceous	Starkey	611	N.A.	1,200	III B 2M
S-2	2,775	12	Late Cretaceous	Starkey	852	N.A.	1,250	III B 2M
S-3	2,900	15	Late Cretaceous	Starkey	827	N.A.	1,330	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	1,620	0	0	See Remarks	--	21	16	1,620

SPACING ACT: Applies

BASE OF FRESH WATER: 1,400-1,700

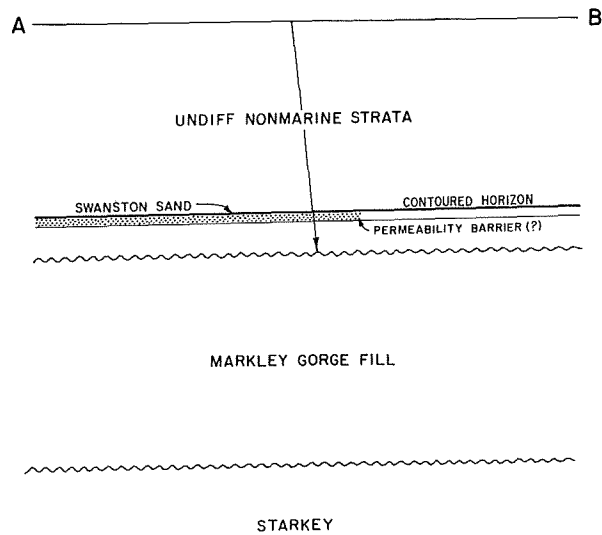
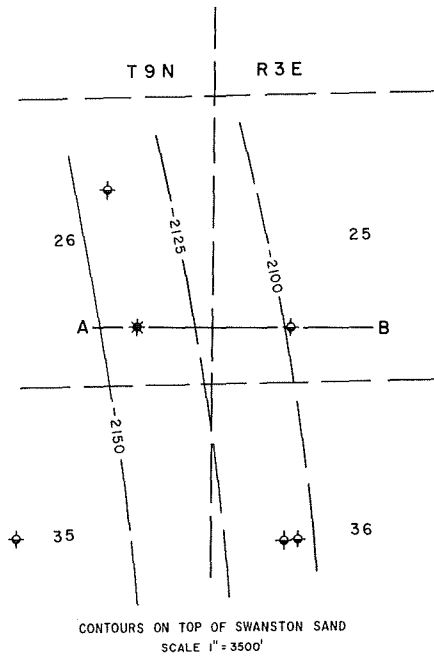
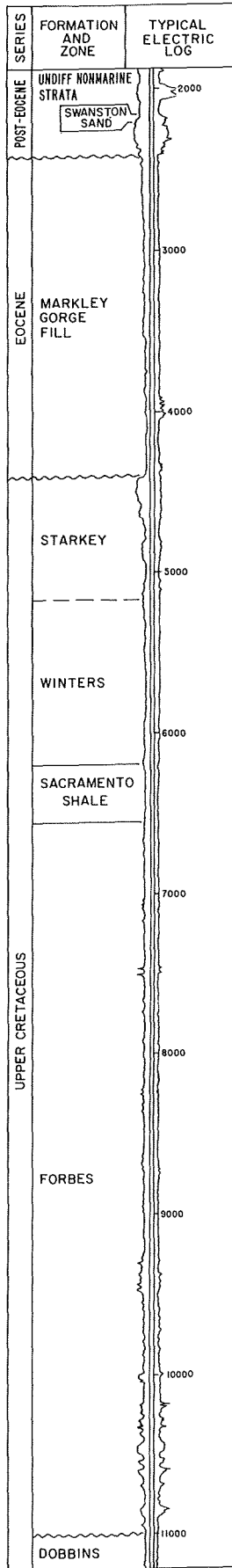
CURRENT CASING PROGRAM: 8 5/8" cem. 900; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in January 1977.

REFERENCES: None

January 1978

SACRAMENTO BY-PASS GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

SHERMAN ISLAND GAS FIELD (Field)
 Contra Costa, Sacramento, and Solano Counties (County)

LOCATION: 5 miles northeast of Antioch

ELEVATION: 10

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Nortonville	Q. R. Grenfell & Son "Dozier-Pressley" 2	Same	16 3N 2E	MD	1,248	1,540	3/16	July 1970
Hamilton	Occidental Pet. Corp. "Reynolds Unit One" 1	Occidental Pet. Corp. "F. H. Reynolds" 1	35 3N 2E	MD	2,297	1,835	1/4	Apr. 1966
Anderson	Aminoil USA, Inc. "Upham" 1	Same	27 3N 2E	MD	5,770	2,163	21/64	Sep. 1965

Remarks: Anderson zone initially yielded 19 bbl condensate (40% water cut); Hamilton zone yielded trace amounts of condensate.

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Occidental Petroleum Corp. "Upham" 1	Same	Oct. 1962	34 3N 2E	MD	12,067	D zone (Goudkoff)	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Nortonville	4,770	7	Eocene	Nortonville	985	N.A.	1,874	III B 2M
Hamilton	5,750	75	Eocene	Meganos	1,016	1,810	2,591	III B 3M
Anderson	6,100	50	Paleocene	Martinez	1,028	10,000	3,112	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
841,742	157,511	1,100	6	28,647,159	6,166,271	1966	29	17	1,660

SPACING ACT: Applies

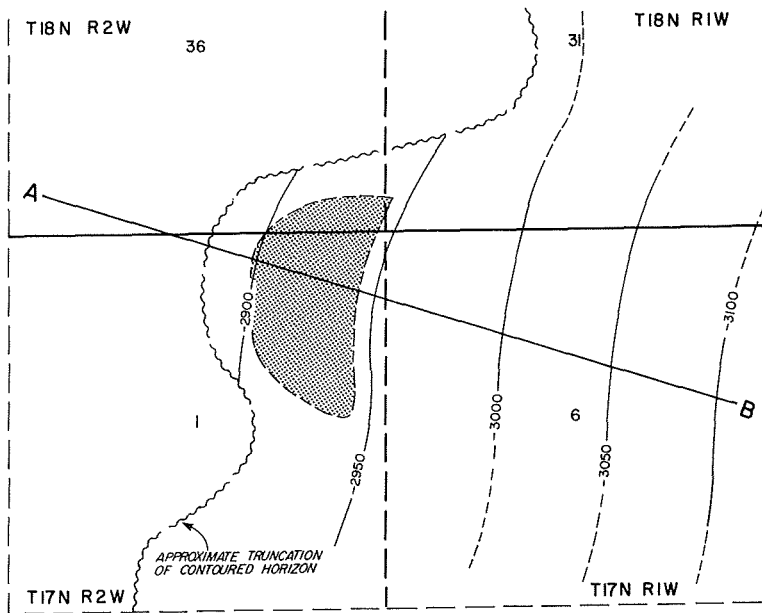
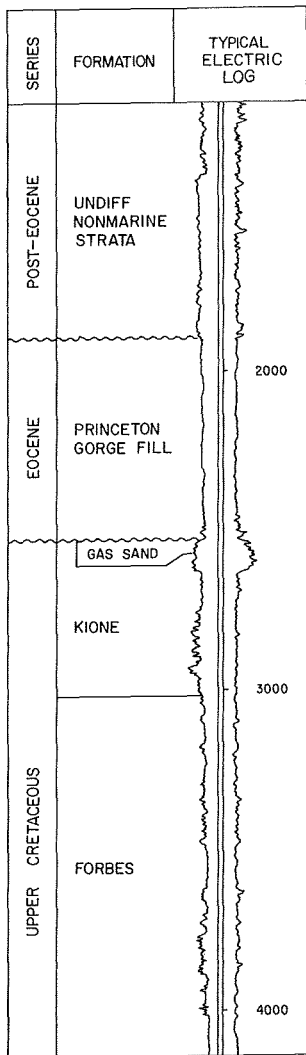
BASE OF FRESH WATER: 800

CURRENT CASING PROGRAM: 8 5/8" cem. 900; 5 1/2" cem. through zone.

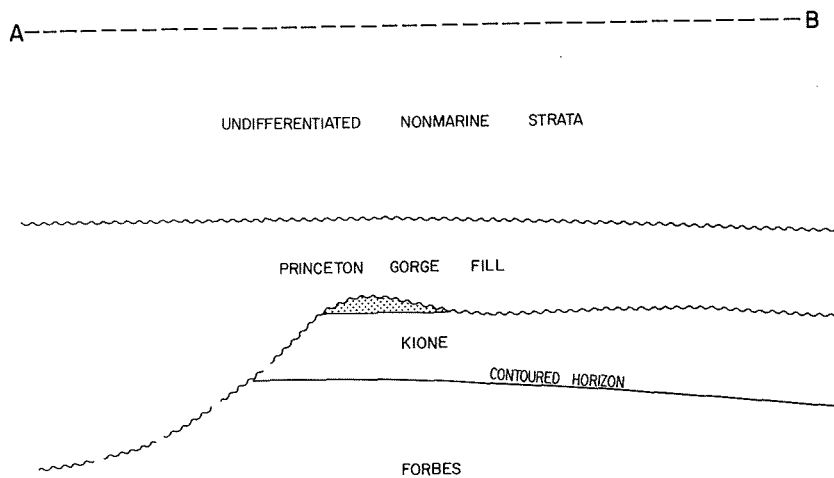
REMARKS: Commercial gas deliveries began in October 1967. 1976 condensate production 1,832 bbl; cumulative condensate production 92,337 bbl.

REFERENCES: Ditzler, C. C., Sherman Island Gas Field, in Selected Papers Presented to San Joaquin Geological Society, Vol. 4, p. 21-25 (1972).

STEGEMAN GAS FIELD



CONTOURS ON BASE OF KIONE



CALIFORNIA DIVISION OF OIL AND GAS

STEGEMAN GAS FIELD (Field)
Colusa County (County)

LOCATION: 10 miles north of Colusa

ELEVATION: 73

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Shell Oil Co. "Thousand Acre Ranch 1" 1	Same	1 17N 2W	MD	13,000	N.A.	N.A.	July 1976

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Shell Oil Co. "Thousand Acre Ranch 1" 1	Same	June 1976	1 17N 2W	MD	4,085	Forbes	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,490	20	Late Cretaceous	Kione	928	N.A.	1,110	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	40	0	0	See Remarks	--	1	1	40

SPACING ACT: Applies

BASE OF FRESH WATER: 1,900

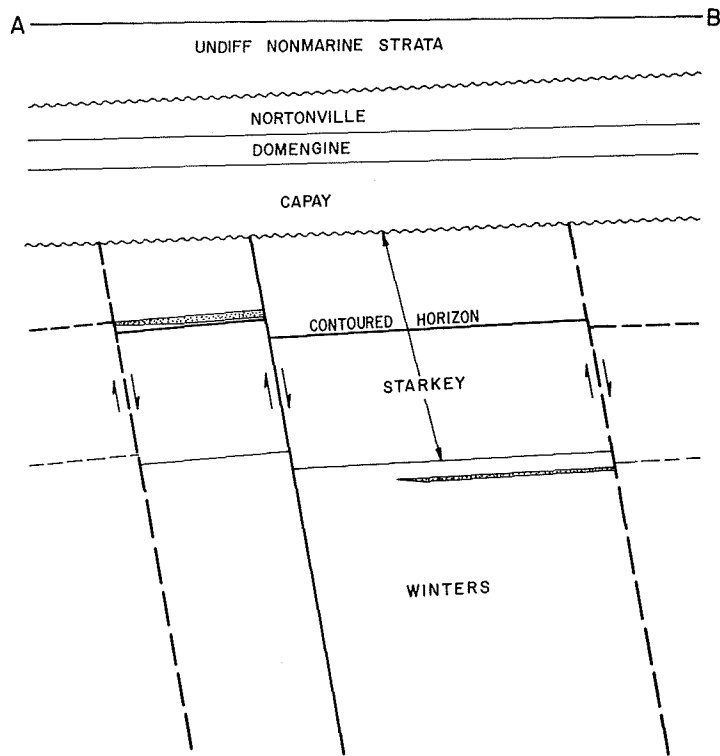
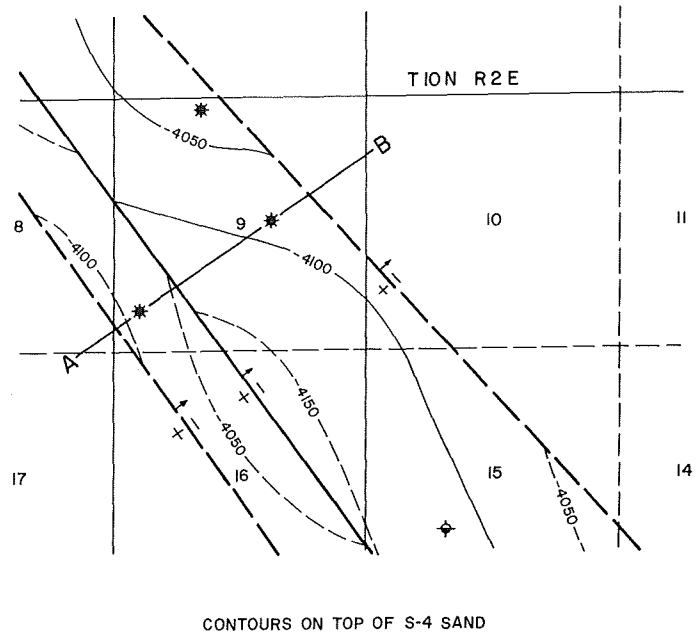
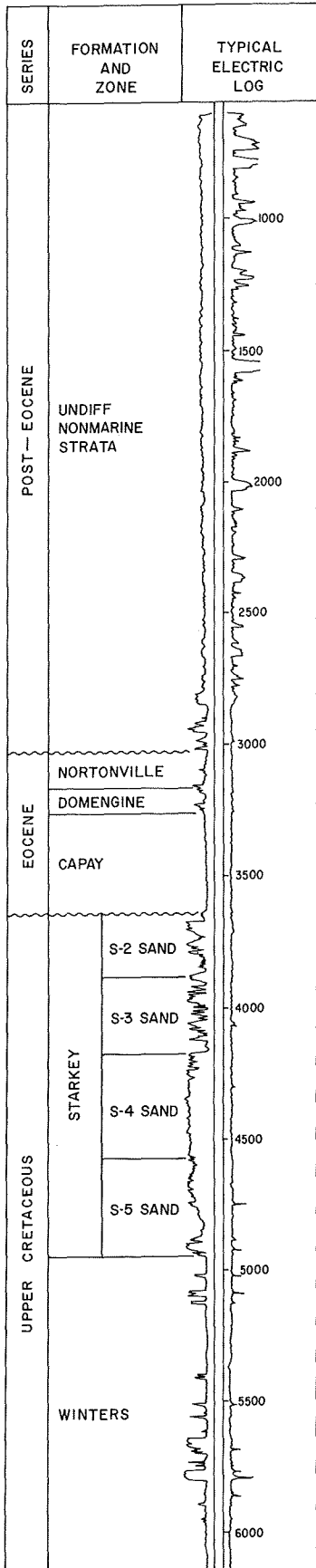
CURRENT CASING PROGRAM: 8 5/8" cem. 1,400; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries have not yet begun.

REFERENCES: None

January 1978

SUGARFIELD GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

SUGARFIELD GAS FIELD (Field)
 YoLo County (County)

LOCATION: 3 miles northeast of Woodland
 ELEVATION: 55

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
S-3 (Unnamed)	The Dow Chemical Co. "Unit 485" 1	Same	9 10N 2E	MD	1,380	1,550	3/16	Dec. 1977
	The Dow Chemical Co. "Wauhab" 1	Same	9 10N 2E	MD	4,020	1,750	20/64	July 1976

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
The Dow Chemical Co. "Wauhab" 1	Same	June 1976	9 10N 2E	MD	6,271	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
S-3 (Unnamed)	4,080	30	Late Cretaceous	Starkey	N.A.	N.A.	1,780	III B 3M
	4,930	15	Late Cretaceous	Winters	N.A.	N.A.	2,240	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1977 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	160	0	0	See Remarks	--	3	3	160

SPACING ACT: Applies

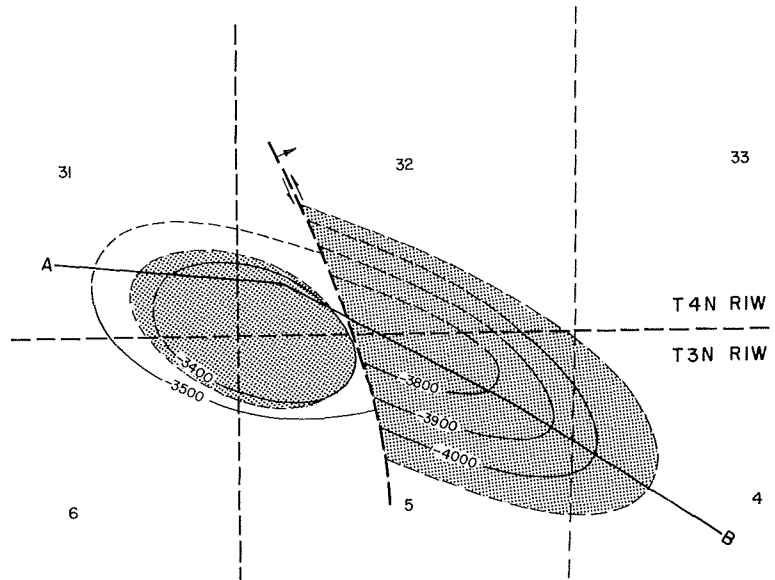
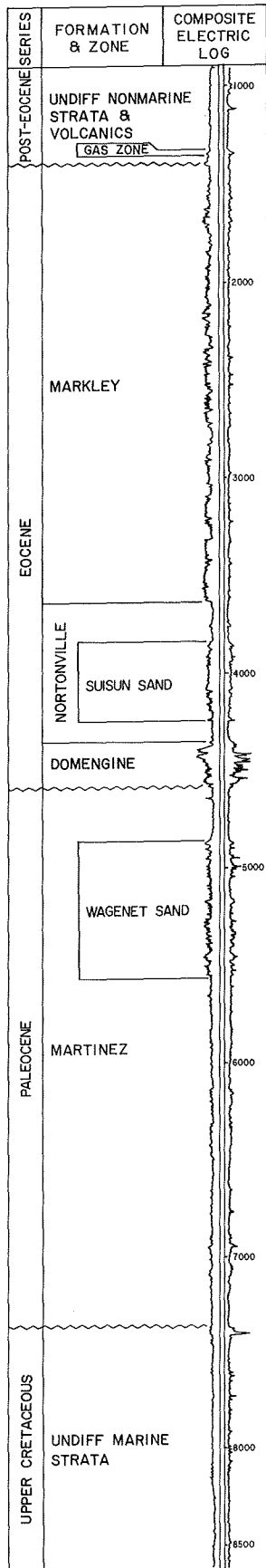
BASE OF FRESH WATER: 2,400

CURRENT CASING PROGRAM: 7" cem. 650; 4 1/2" cem. through zones and across base of freshwater sands.

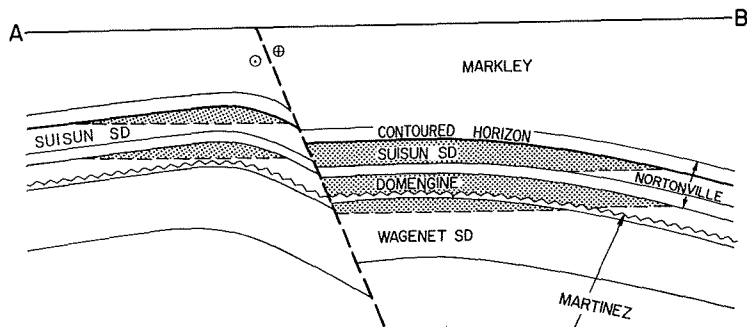
REMARKS: Commercial gas deliveries have not yet begun.

REFERENCES: None

SUISUN BAY GAS FIELD



CONTOURS ON TOP OF SUISUN SAND
SCALE: 1" = 2800'



STRUCTURAL INTERPRETATION COURTESY OF
STANDARD OIL COMPANY OF CALIFORNIA

CALIFORNIA DIVISION OF OIL AND GAS

TISDALE GAS FIELD (Field)
Sutter County (County)

LOCATION: 9 miles southwest of Yuba City

ELEVATION: 45

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed sand stringers)	T. A. Atkinson, Opr. "Atlantic-Giusti" 1	Same	17 14N 2E	MD	*150 8,580	2,540 2,480	N.A. 21/64	Aug. 1961 Aug. 1961

Remarks: * Well was dually completed in two intervals in the Forbes.

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Atlantic Oil Co. "Lamb" 2	Same	Dec. 1963	20 14N 2E	MD	7,542	Guinda	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed sand stringers)	5,800-6,300	2-15 per stringer	Late Cretaceous	Forbes	925-1,000	16,400-18,100	3,350	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
819,528	3,179	640	3	12,023,116	1,006,041	1968	8	4	640

SPACING ACT: Applies

BASE OF FRESH WATER: 600

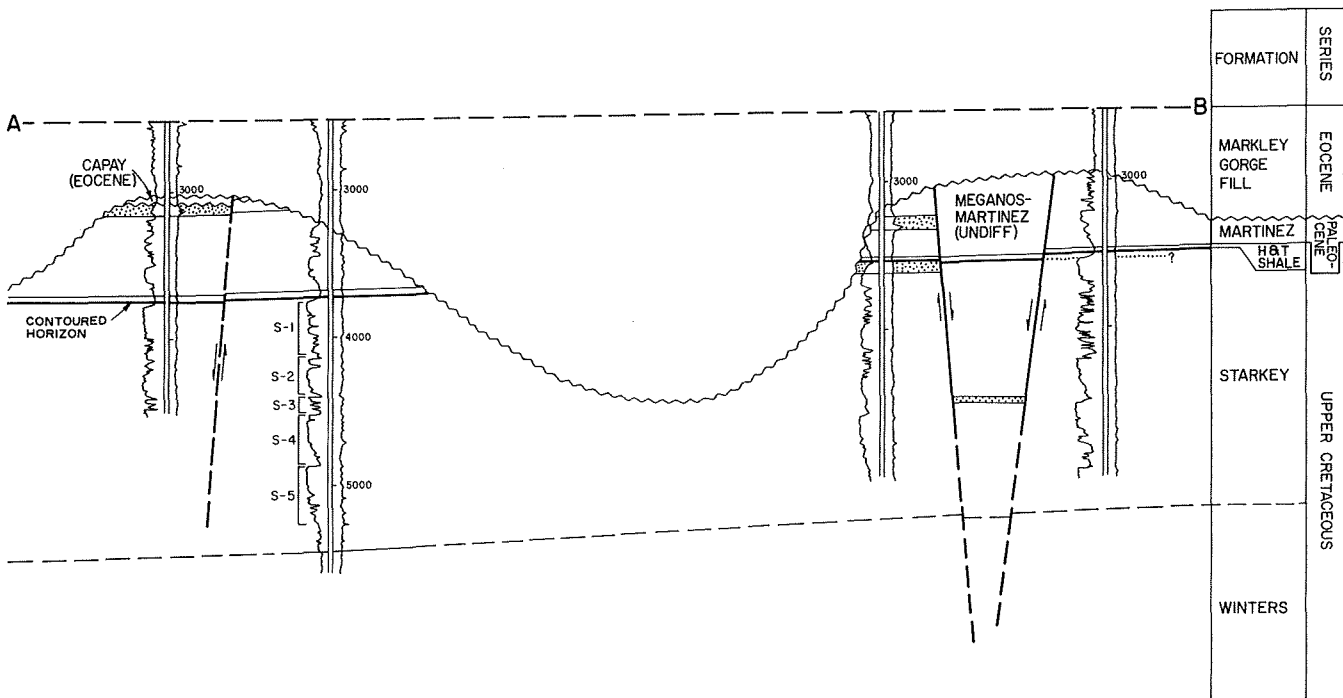
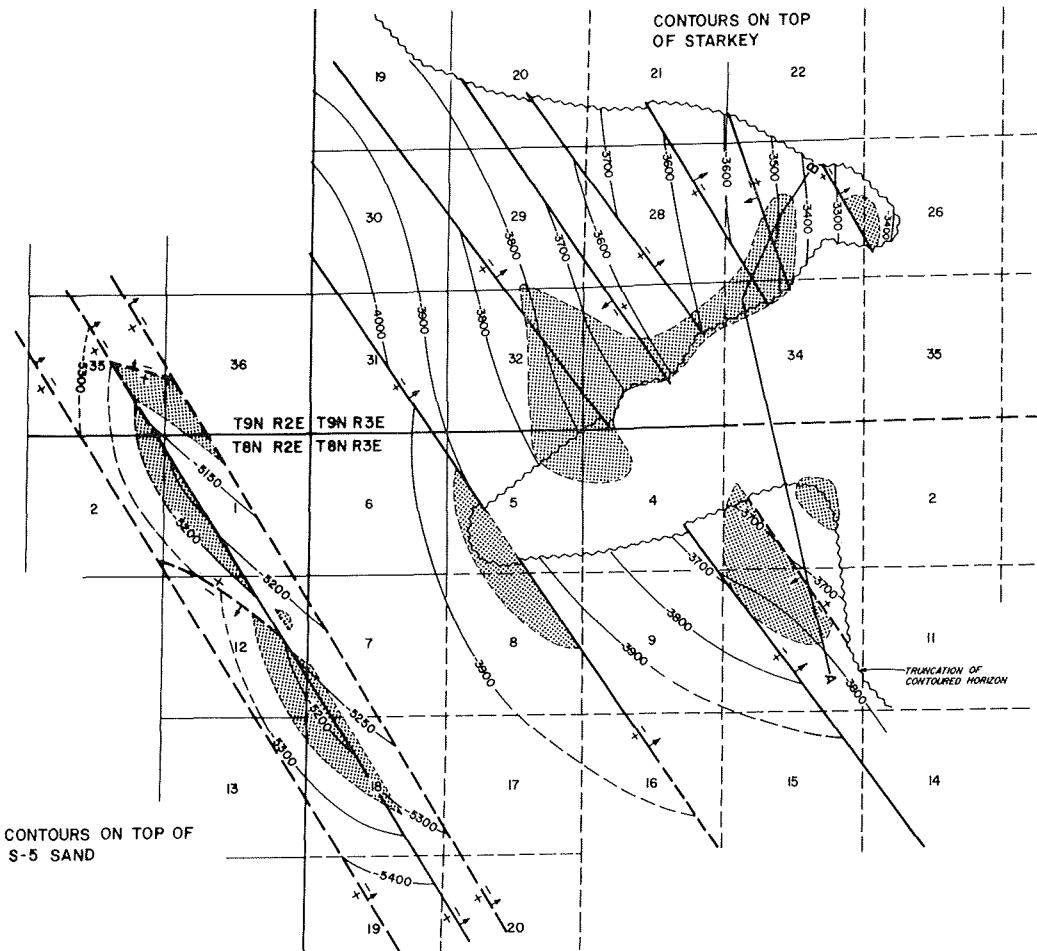
CURRENT CASING PROGRAM: 13 3/8" cem. 300; 9 5/8" cem. 2,500; 5 1/2" or 4 1/2" cem. through zones.

REMARKS: Commercial gas deliveries began in April 1963.

REFERENCES: Weddle, J. R., Tisdale Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 54, No. 2, Part 2 (1968).

January 1978

TODHUNTERS LAKE GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

TODHUNTERS LAKE GAS FIELD (Field)
 Yolo County (County)

LOCATION: 4 miles northeast of Davis

ELEVATION: 31

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Atlantic Oil Co. "Purves" 1	Same	10 8N 3E	MD	5,100	1,175	28/64	Aug. 1969
(Unnamed)	Getty Oil Co. "I.O.C." 3	Same	34 9N 3E	MD	4,100	840	30/64	Oct. 1968
S-1	Getty Oil Co. "I.O.C. Unit" 1	Same	27 9N 3E	MD	3,400	500	1/2	Aug. 1968
S-2	Getty Oil Co. "Reavis and Baker" 1	Tidewater Oil Co. "Reavis and Baker" 1	33 9N 3E	MD	5,360	1,110	1/2	May 1967
S-3	Getty Oil Co. "I.O.C." 2	Getty Oil Co. "Investment Operating Corp." 2	33 9N 3E	MD	1,400	425	24/64	May 1968
S-4	Same	Same	33 9N 3E	MD	2,000	620	24/64	May 1968
S-5	Same	Same	33 9N 3E	MD	2,400	750	24/64	May 1968
(Unnamed)	Atlantic Oil Co. "Oil Leases" 1	Same	4 8N 3E	MD	4,420	1,850	5/16	July 1972

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Getty Oil Co. "I.O.C." 2	Getty Oil Co. "Investment Operating Corp." 2	Apr. 1968	33 9N 3E	MD	7,000	Forbes	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	3,100	30	Eocene-Paleocene	Meganos-Martinez	890	N.A.	1,430	III B 2M
(Unnamed)	3,200	60	Eocene-Paleocene	Meganos-Martinez	890	N.A.	1,420	III B 2M
S-1	3,600	40	Late Cretaceous	Starkey	890	6,160	1,580	III B 2M
S-2	4,000	15	Late Cretaceous	Starkey	900	N.A.	1,750	III B 2M
S-3	4,350	40	Late Cretaceous	Starkey	890	N.A.	1,920	III B 2M
S-4	4,430	55	Late Cretaceous	Starkey	890	N.A.	1,950	III B 2M
S-5	4,720	35	Late Cretaceous	Starkey	840	9,160	2,040	III B 2M
(Unnamed)	5,440	20	Late Cretaceous	Winters	695-905	N.A.	2,180	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
11,485,228	156,983	2,505	38	51,856,848	11,912,060	1975	93	57	2,975

SPACING ACT: Applies

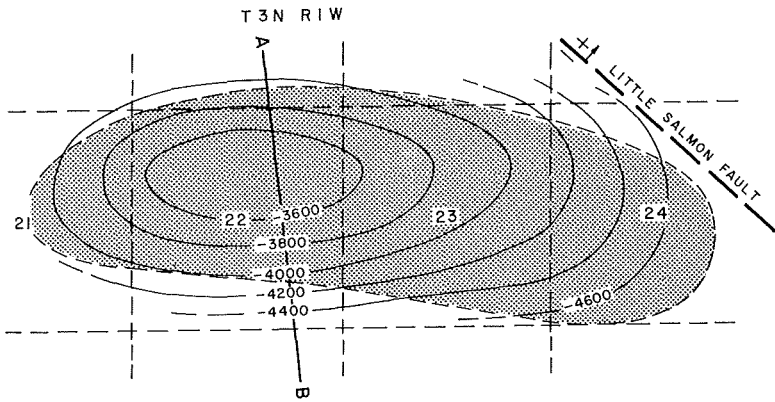
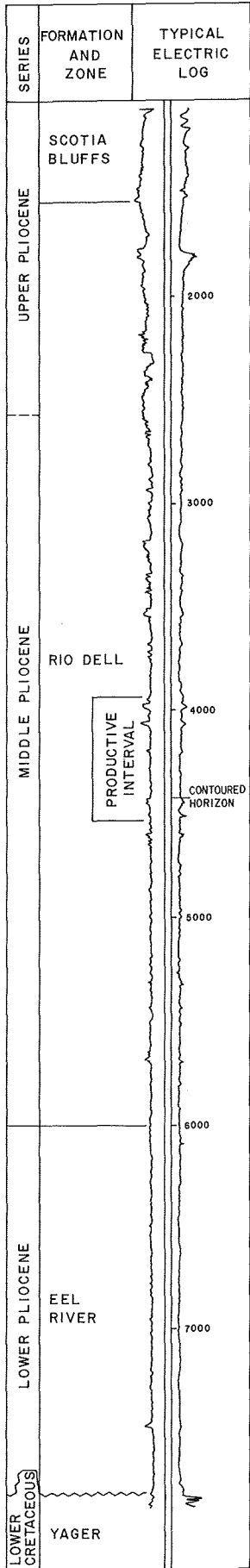
BASE OF FRESH WATER: 2,100-2,500

CURRENT CASING PROGRAM: 9 5/8" or 8 5/8" cem. 500-1,000; 5 1/2" or 4 1/2" cem. through zone and across base of freshwater sands.

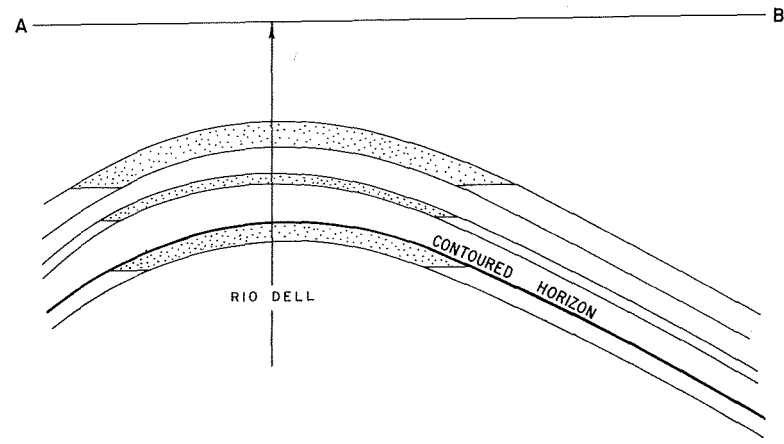
REMARKS: Commercial gas deliveries began in May 1968. The 695-Btu heating value in unnamed zone of Winters Formation is due to high nitrogen content.

REFERENCES: Williams, P. A., Todhunters Lake Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 56, No. 1 (1970).

TOMPKINS HILL GAS FIELD



CONTOURS ON ELECTRIC LOG MARKER WITHIN PRODUCTIVE INTERVAL



CALIFORNIA DIVISION OF OIL AND GAS

TRACY GAS FIELD (Field)
San Joaquin County (County)

LOCATION: 1/2 mile north of Tracy
ELEVATION: 35

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Tracy	Amerada Hess Corp. "F.D.L." 2	Amerada Petroleum Corp. "F.D.L." 2	15 2S SE	MD	35,000	1,400	1 1/2	Aug. 1935

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Amerada Hess Corp. "Tracy Community 1" 1	Amerada Petroleum Corp. "Tracy Community 1" 1	Feb. 1964	15 2S SE	MD	13,832	F zone (Goukoff)	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Tracy	3,900	40	Late Cretaceous	Panoche	930	6,850-8,560	1,854	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
0	0	40	0	13,775,969	3,012,083	1936	19	7	350

SPACING ACT: Applies

BASE OF FRESH WATER: 1,200

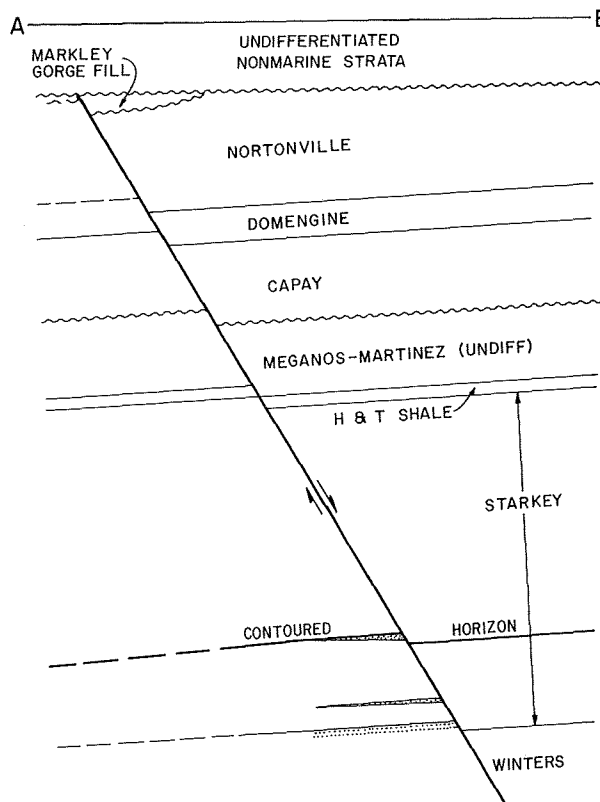
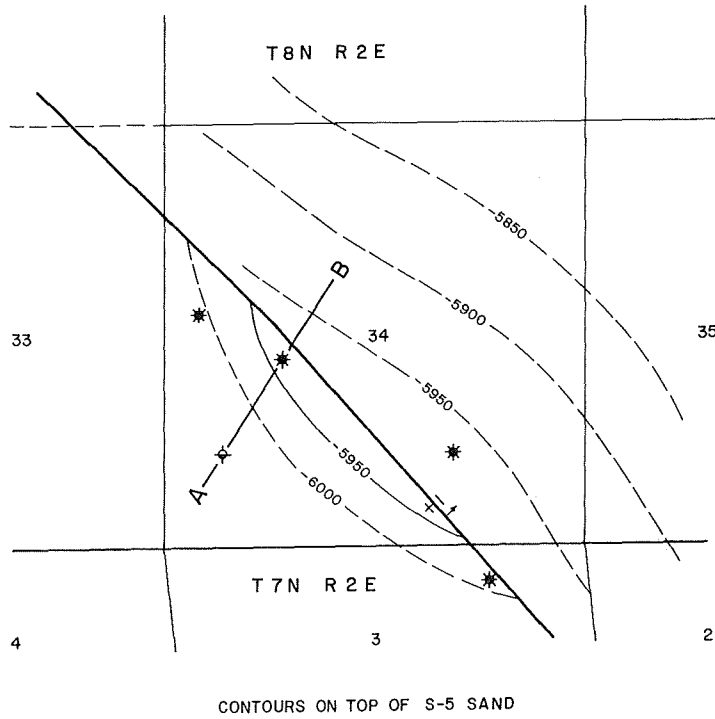
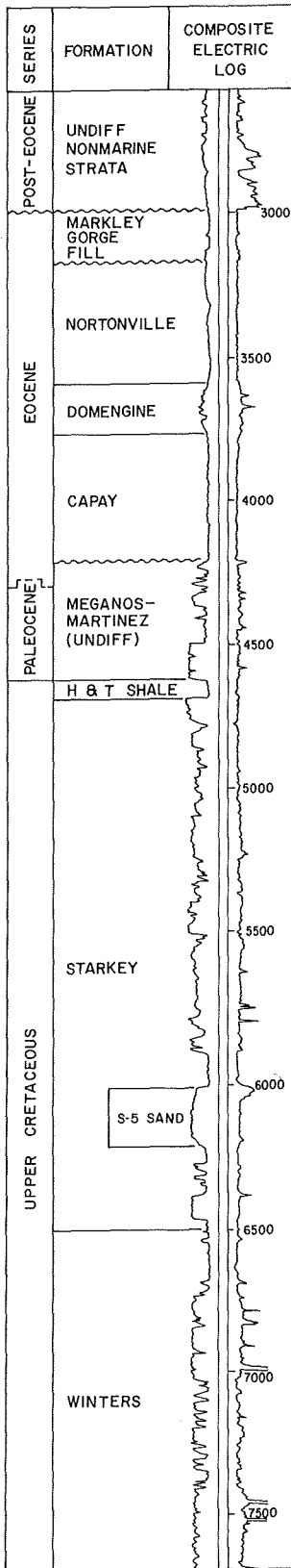
CURRENT CASING PROGRAM: 9 5/8" or 8 5/8" cem. 500; 5 1/2" or 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: First commercial gas field in Northern California, and first field in California to produce gas commercially from a Cretaceous zone. Commercial gas deliveries began in September 1935. The field was abandoned in November 1964 and reactivated in November 1977.

REFERENCES: Beckwith, H. T., Tracy Gas Field: Calif. Div. of Mines Bull. 118, p. 586-587 (1943).
Hunter, G. W., Tracy Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 43, No. 1 (1957).

January 1978

TREMONT GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

TREMONT GAS FIELD (Field)
Solano County (County)

LOCATION: 3 miles south of Davis

ELEVATION: 40

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Capitol Oil Corp. "Hamel-Thomas" 1	Same	34 8N 2E	MD	3,267	2,130	1/4	Mar. 1974
(Unnamed)	Capitol Oil Corp. "Hamel-Thomas" 1	Same	34 8N 2E	MD	3,161	2,070	1/4	Mar. 1974

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Capitol Oil Corp. "Hamel-Thomas" 2	Same	Apr. 1974	34 8N 2E	MD	8,051	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	6,050	20	Late Cretaceous	Starkey	873	N.A.	2,550	III B 3M
(Unnamed)	6,560	7	Late Cretaceous	Winters	852	N.A.	2,810	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
1,437,548	60,649	230	4	1,437,548	1,437,548	1976	5	4	230

SPACING ACT: Applies

BASE OF FRESH WATER: 3,000

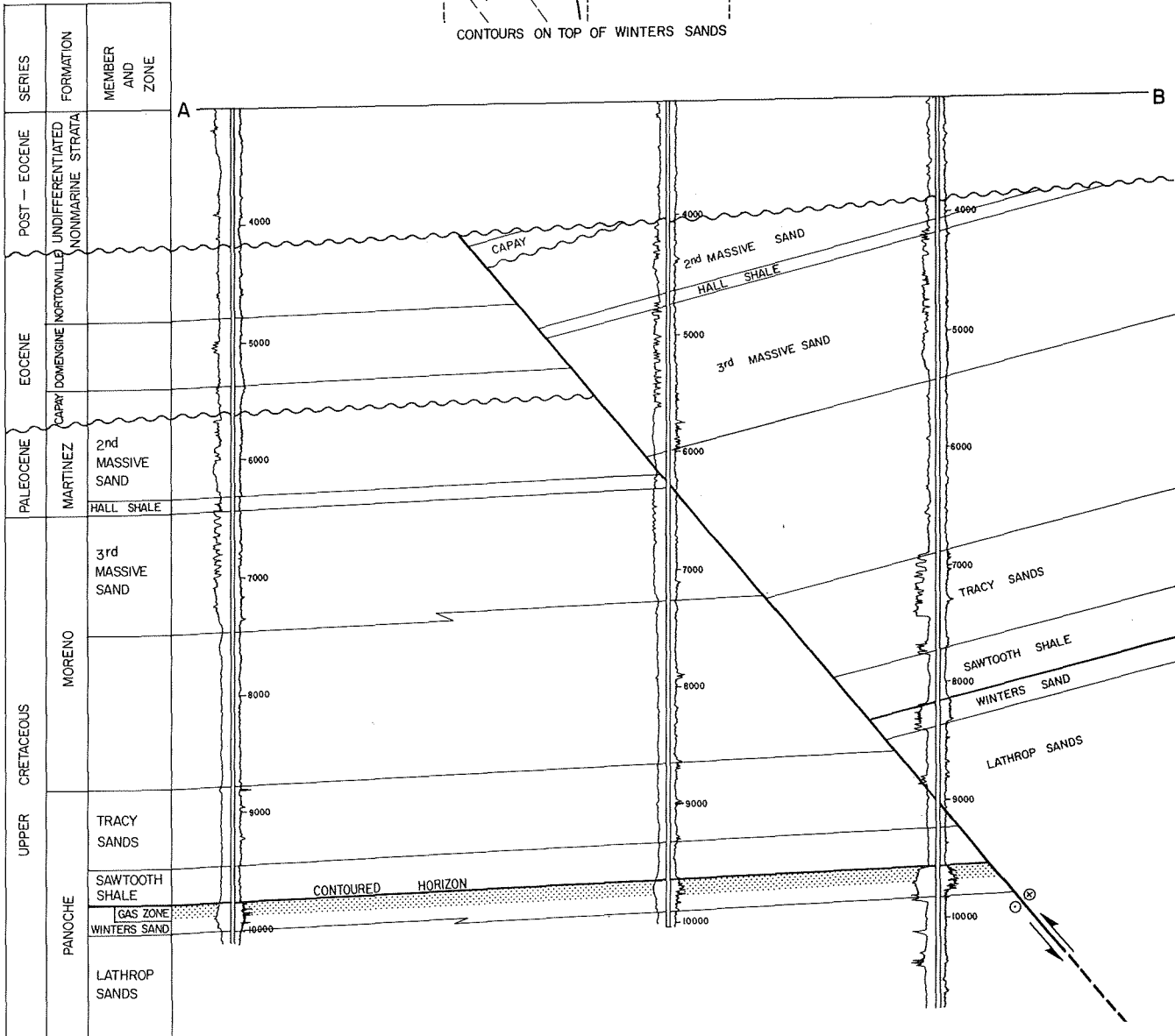
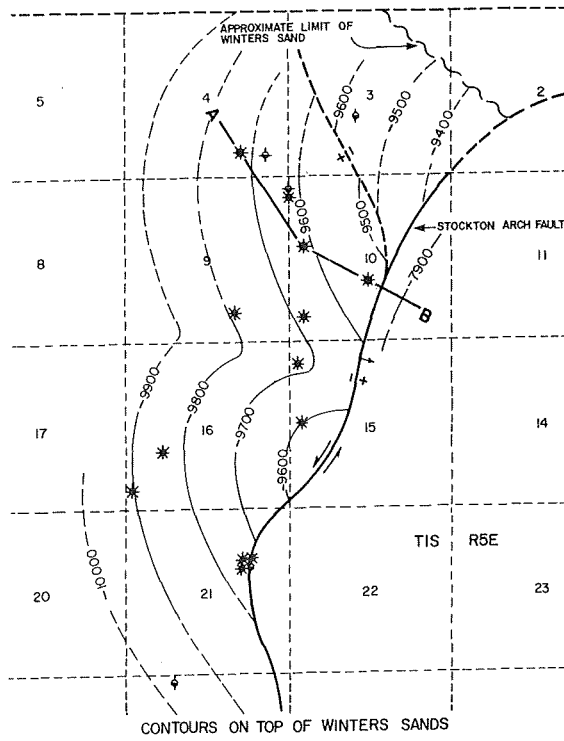
CURRENT CASING PROGRAM: 8 5/8" cem. 700; 4 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in January 1976.

REFERENCES: None

January 1978

UNION ISLAND GAS FIELD



CALIFORNIA DIVISION OF OIL AND GAS

UNION ISLAND GAS FIELD (Field)
 San Joaquin County (County)

LOCATION: 10 miles southwest of Stockton

ELEVATION: Sea level

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Union Oil Co. of Calif. "Sonol Securities" 1-A	Same	10 1S 5E	MD	4,450	3,300	1/4	Feb. 1972

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Union Oil Co. of Calif. "Sonol Securities" 7	Same	Nov. 1973	10 1S 5E	MD	12,527	E Zone (Goudkoff)	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	9,700	150	Late Cretaceous	Winters	870	39,900	5,040	III B 5M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
19,665,780	44,939	1,590	14	19,795,180	19,665,780	1976	22	14	1,590

SPACING ACT: Applies

BASE OF FRESH WATER: 300

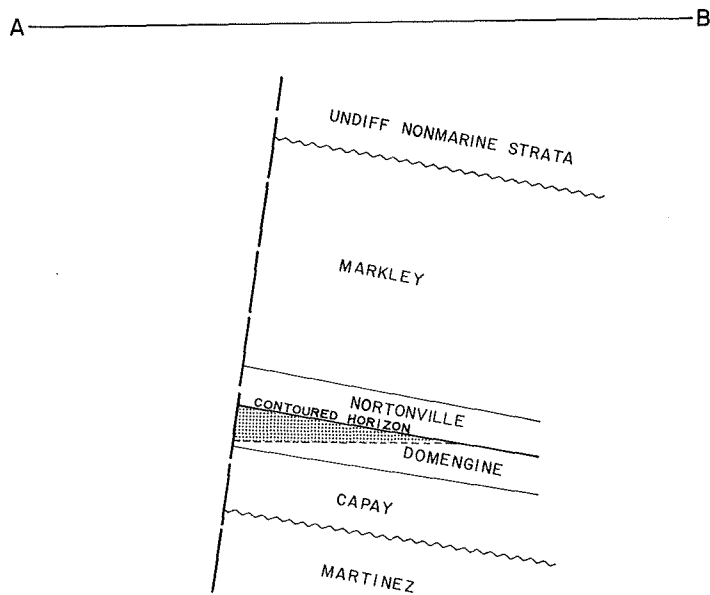
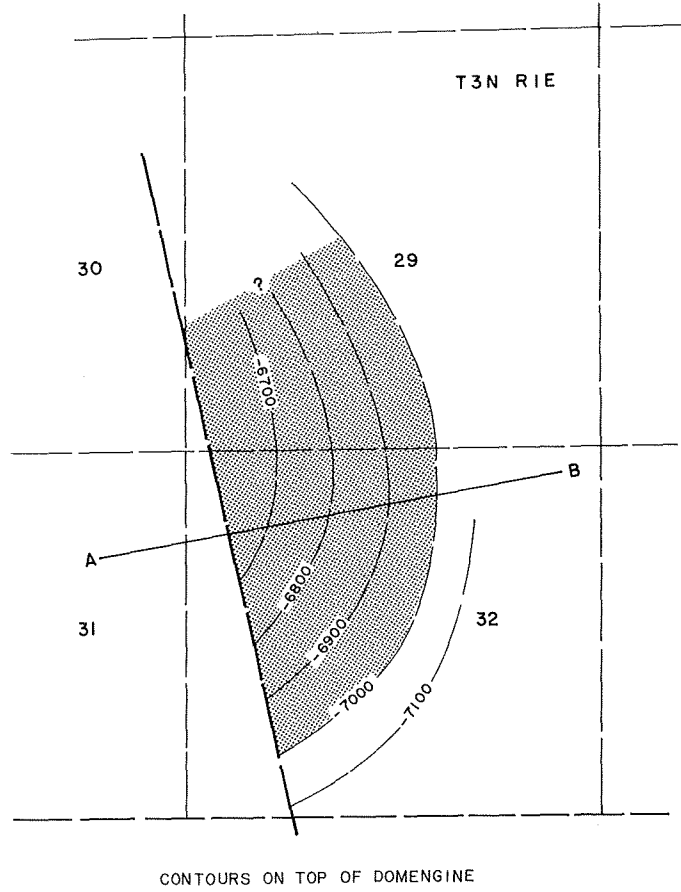
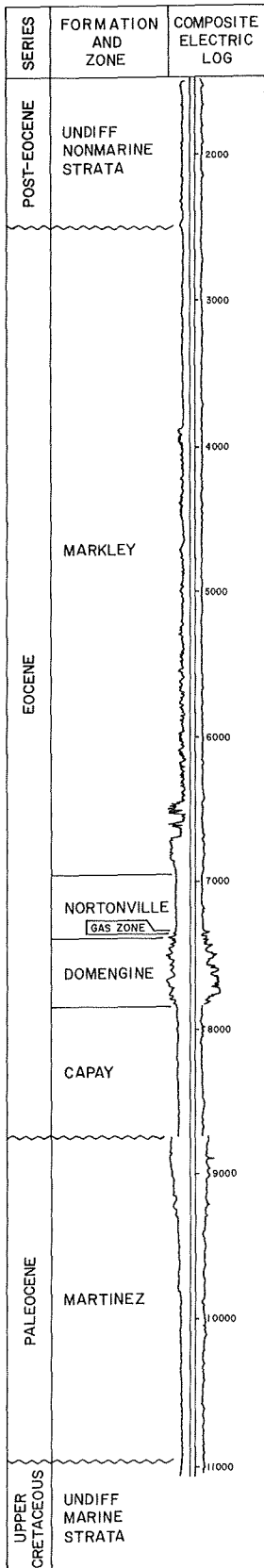
CURRENT CASING PROGRAM: 13 3/8" cem. 600; 9 5/8" cem. 5,800; 5 1/2" cem. through zone.

REMARKS: Commercial gas deliveries began in January 1976.

REFERENCES: None

January 1978

VAN SICKLE ISLAND GAS FIELD



COURTESY OF STANDARD OIL COMPANY OF CALIFORNIA

CALIFORNIA DIVISION OF OIL AND GAS

WILLOW PASS GAS FIELD (Field)
 Contra Costa County (County)

LOCATION: 8 miles east of Martinez

ELEVATION: 425-775

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
Nortonville	The Termo Co. "Faria Unit" 2	Trico Oil and Gas Co. "Faria Unit" 2	21 2N 1W	MD	1,500	310	3/8	July 1959
Domengine	The Termo Co. "Faria Unit" 1	Trico Oil and Gas Co. "Faria Unit" 1	21 2N 1W	MD	4,300	290	3/4	May 1959

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
The Termo Co. "Neustaedter" 1	Trico Oil and Gas Co. "Neustaedter" 1	Aug. 1959	16 2N 1W	MD	5,483	Undiff. marine	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
Nortonville	1,500-3,100	35	Eocene	Nortonville	1,000	N.A.	530-1,335	III B 2M
Domengine	1,800	50	Eocene	Domengine	1,020	N.A.	650	III B 2M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
14,739	0	85	2	2,880,052	263,347	1967	12	6	85

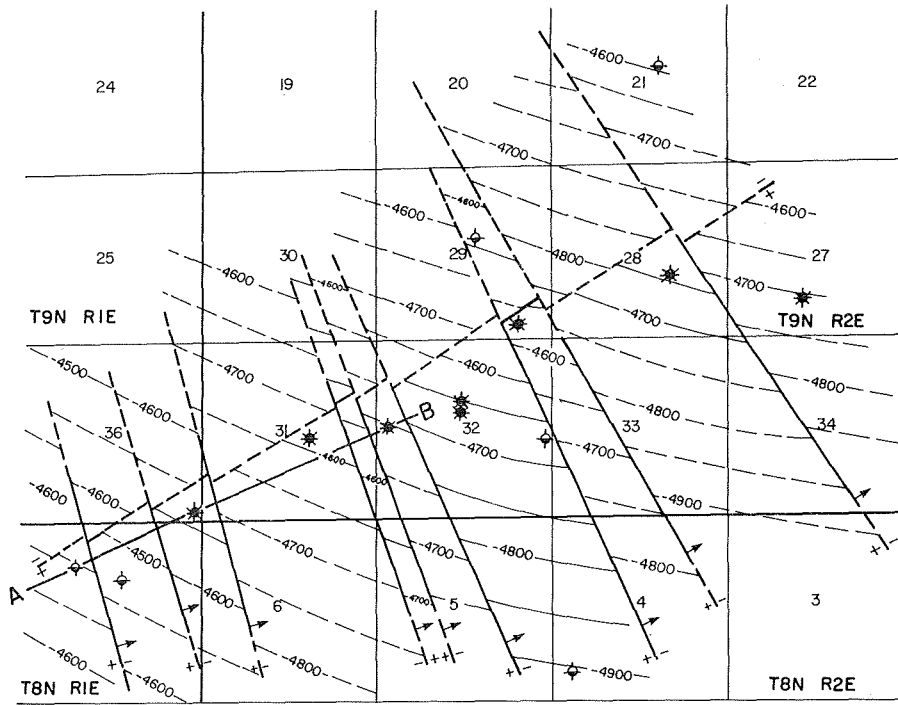
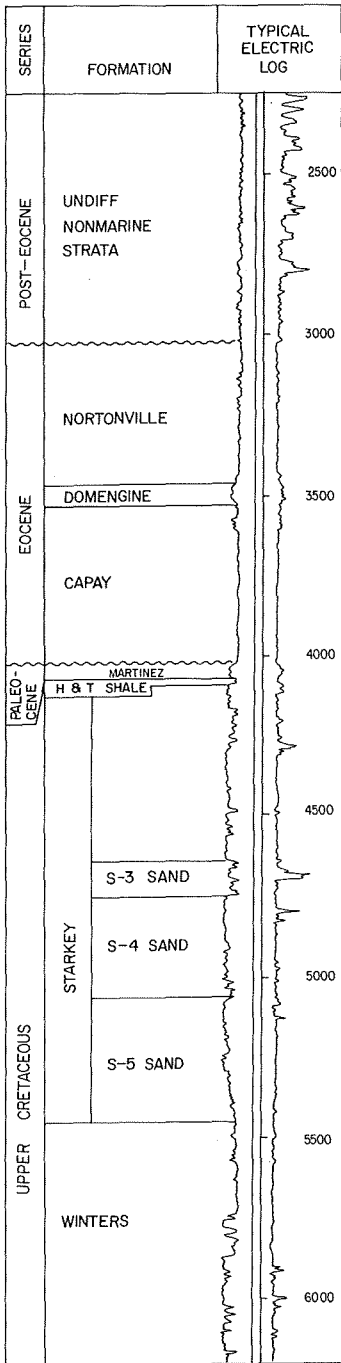
SPACING ACT: Applies

BASE OF FRESH WATER: 150

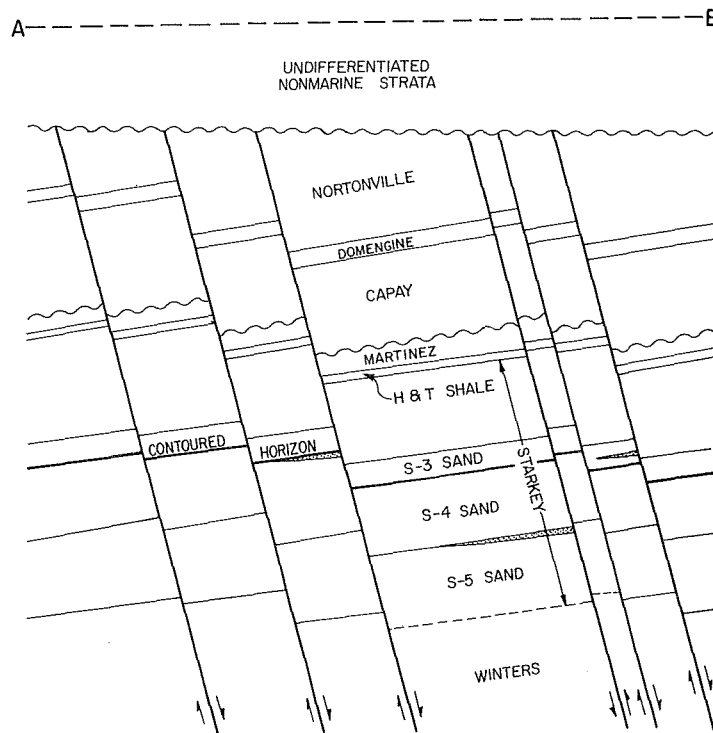
CURRENT CASING PROGRAM: 9 5/8" cem. 500; 5 1/2" cem. through zones.

REMARKS: Commercial gas deliveries began in April 1960.

REFERENCES: Matthews, J. F., Jr., Willow Pass Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 49, No. 1 (1963).



CONTOURS ON TOP OF S-4 SAND



CALIFORNIA DIVISION OF OIL AND GAS

WILLOW SLOUGH GAS FIELD (Field)
 Yo1o County (County)

LOCATION: 3 miles north of Davis
 ELEVATION: 50

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
S-3	Shell Oil Co. "Schuder" 1-32	Same	32 9N 2E	MD	1,020	1,750	N.A.	Oct. 1974
S-4	Shell Oil Co. "Stephens" 1-28	Same	28 9N 2E	MD	1,580	N.A.	N.A.	June 1976
S-5	Shell Oil Co. "Staib" 1-31	Same	31 9N 2E	MD	1,260	N.A.	N.A.	Sept. 1976
Winters	Shell Oil Co. "Schuder" 2-32	Same	32 9N 2E	MD	375	1,000	N.A.	June 1975

Remarks:

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Shell Oil Co. "Stephens" 1-28	Same	Oct. 1974	28 9N 2E	MD	7,504 (7,138) TVD	Winters	Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
S-3	4,670	30	Late Cretaceous	Starkey	890-902	N.A.	2,050	III B 3M
S-4	4,770	15	Late Cretaceous	Starkey	N.A.	N.A.	2,120	III B 3M
S-5	5,150	15	Late Cretaceous	Starkey	N.A.	N.A.	2,200	III B 3M
Winters	5,990	10	Late Cretaceous	Winters	900	5,040	2,530	III B 3M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbi)				(Mcf)	Year	Drilled	Completed	
0	0	1,600	0	0	See Remarks	--	9	8	1,600

SPACING ACT: Applies

BASE OF FRESH WATER: 2,800

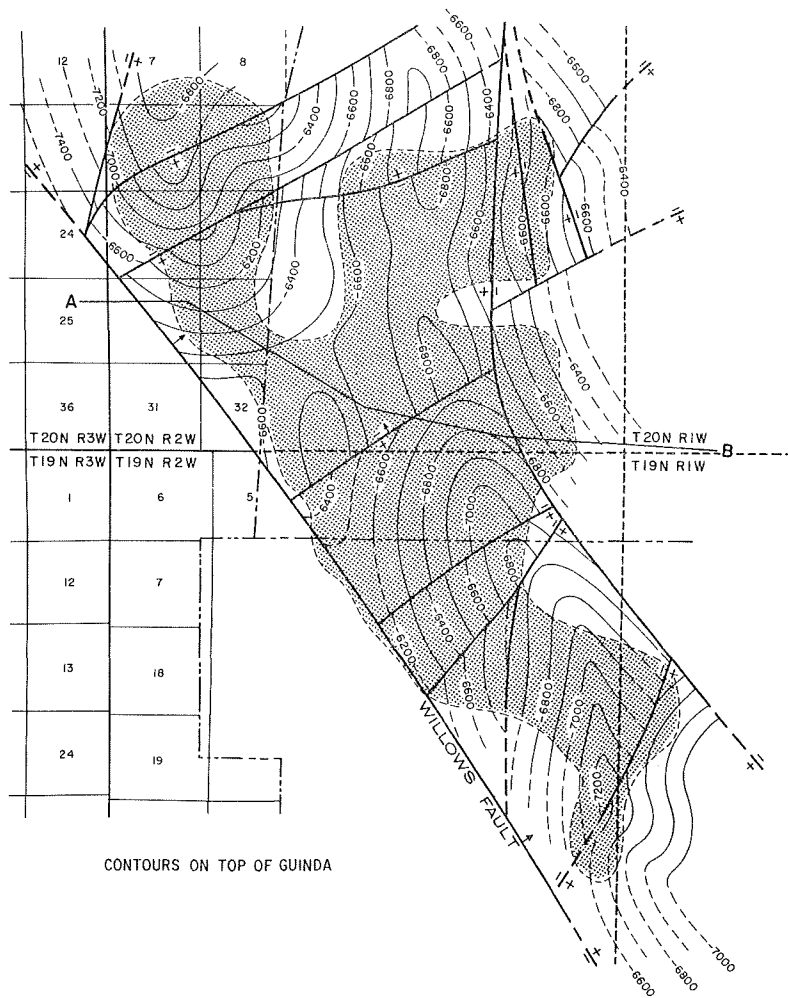
CURRENT CASING PROGRAM: 8 5/8" cem. 800; 5 1/2" cem. through zone and across base of freshwater sands.

REMARKS: Commercial gas deliveries began in February 1977.

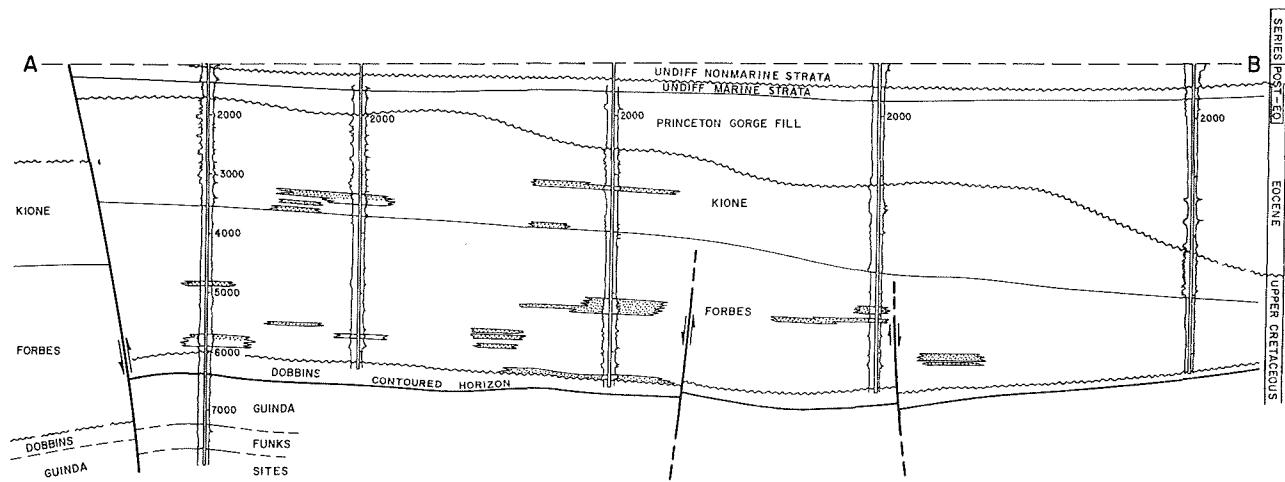
REFERENCES: None

January 1978

WILLOWS-BEEHIVE BEND GAS FIELD



CONTOURS ON TOP OF GUINDA



CALIFORNIA DIVISION OF OIL AND GAS

WILLOWS - BEEHIVE BEND GAS FIELD (Field)
Glenn County (County)

LOCATION: 7 miles east of Willows

ELEVATION: 105

DISCOVERY DATA

Zone	Present operator and well name	Original operator and well name	Sec. T. & R.	B. & M.	Initial production			Date of completion
					Daily (Mcf)	Flow pressure (psi)	Bean size (inches)	
(Unnamed)	Sun Oil Co. "Huffmaster" 1	Sunray Mid-Continent Oil Co. "Huffmaster" 1	24 19N 2W	MD	3,035	855	19/64	Sep. 1956*
(Unnamed sand stringers)	Teal Petroleum Co. "Transamerica" 71-18	The Ohio Oil Co. "E.E. Willard" 1-A	18 20N 2W	MD	5,355	515	21/32	Aug. 1938
(Unnamed sand stringers)	Rheem Calif. Land Co. "Zumwalt" 1-63	Richard S. Rheem, Opr. "Zumwalt" 1-63	2 19N 2W	MD	5,000	2,050	5/16	Sep. 1954
(Unnamed)	Mobil Oil Corp. "Miner-Jones" 5	General Pet. Corp. "Miner-Jones" 5	34 20N 2W	MD	7,000	1,210	1/2	Mar. 1958
(Unnamed)	Mobil Oil Corp. "Wolcott Capital" 1	General Pet. Corp. "Wolcott Capital Unit" 1	13 19N 2W	MD	280	1,080	1/8	Mar. 1955

Remarks: * Date of recompletion; originally completed in Kione sands.

DEEPEST WELL DATA

Present operator and well name	Original operator and well name	Date started	Sec. T. & R.	B. & M.	Total depth (feet)	At total depth	
						Strata	Age
Sun Oil Co. "Sunray-General Petroleum Whyler-Wolcott Unit" 1	Sunray Oil Corp. "Sunray-General Petroleum Whyler-Wolcott Unit" 1	May 1955	11 19N 2W	MD	10,807	Basement	pre-Late Cret.

PRODUCING ZONES

Zone	Average depth (feet)	Average net thickness (feet)	Geologic		Heating value of gas (Btu)	Salinity of zone water (ppm)	Original zone pressure (psi)	Class BOPE required
			Age	Formation				
(Unnamed)	2,045	25	Eocene	Princeton Gorge fill	990	1,710	955	III B 2M
(Unnamed sand stringers)	1,930-3,650	10-80 per stringer	Late Cretaceous	Kione	990	4,960-18,400	900-1,705	III B 3M
(Unnamed sand stringers)	4,420-6,400	3-60 per stringer	Late Cretaceous	Forbes	980	1,200-17,100	2,200-4,200	III B 3M
(Unnamed)	6,700	30	Late Cretaceous	Dobbins	N.A.	N.A.	4,440	III B 5M
(Unnamed)	7,275	70	Late Cretaceous	Guinda	980	N.A.	1,800	III B 5M

PRODUCTION DATA

1976 Production		1977 Proved acreage	1976 Maximum number producing wells	1976 Cumulative gas production (Mcf)	Peak gas production		Total number of wells		Maximum proved acreage
Net gas (Mcf)	Water (bbl)				(Mcf)	Year	Drilled	Completed	
6,801,592	58,310	9,560	65	291,355,077	29,202,019	1959	199	126	13,320

SPACING ACT: Applies

BASE OF FRESH WATER: 850-1,500

CURRENT CASING PROGRAM: Princeton Gorge fill: 8 5/8" cem. 500; 5 1/2" cem. through zone and across base of freshwater sands.
Kione Formation: 8 5/8" cem. 500; 5 1/2" cem. through zone and across base of freshwater sands.
Forbes Formation (upper): 8 5/8" cem. 800; 5 1/2" cem. through zone and across base of freshwater sands.
Forbes (lower), Dobbins and Guinda Formations: 9 5/8" cem. 1,500; 5 1/2" cem. through zone.

REMARKS:

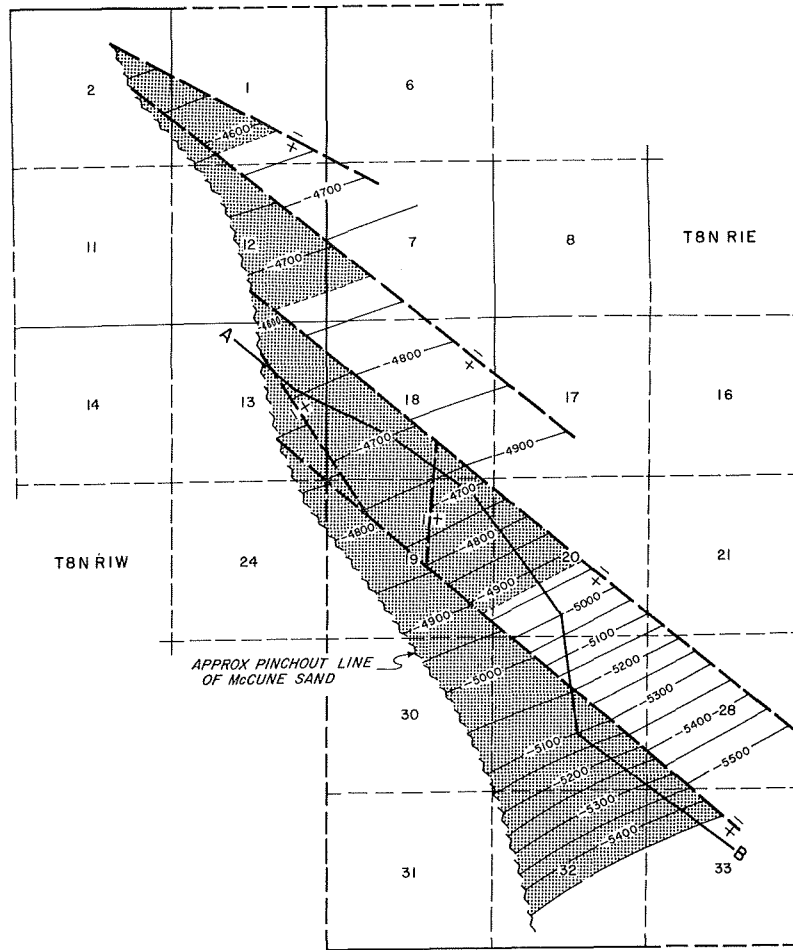
The Ohio Oil Co. well No. "E.E. Willard" 1 (now operated by Transamerica Development Co.) blew out in January 1938 while operator was preparing to pull drill pipe from 4,505'. A large crater formed in which the derrick and equipment were lost. The well blew gas and water for 23 days. Commercial gas deliveries began in March 1944. Many of the gas-sand stringers in the Kione and Forbes Formations have been given local names by operators.

REFERENCES:

Barger, R. M. and J. C. Sullivan, Willows-Beehive Bend Gas Field: Calif. Div. of Oil and Gas, Summary of Operations--Calif. Oil Fields, Vol. 52, No. 2, Part 2 (1966).

January 1978

WINTERS GAS FIELD



CONTOURS ON TOP OF McCUNE SAND

