

## GUIDE TO EOR TABLES

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- C.** Producing CO<sub>2</sub>, other gas, and chemical EOR in US
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## ABBREVIATIONS

Formation type	Previous production	Project maturity	Project evaluation	Project scope
S: Sandstone	Prim: Primary	JS: Just started	TETT: Too early to tell	P: Pilot project
LS: Limestone	WF: Waterflood	HF: Half finished	Prom.: Promising	FW: Field-wide
Dolo: Dolomite	GI: Gas injection	NC: Nearing completion	Succ.: Successful	LW: Lease-wide
Congl.: Conglomerate	C: Cyclic steam	C: Completed	Disc.: Discouraging	RW: Reservoir-wide
Tripol: Tripolite	HW: Hot water	PP: Postponed	None: Not evaluated	Exp. L: Expansion likely
US: Unconsolidated sand	SS: Steam soak	Term.: Terminated		Exp. UL: Expansion unlikely
	S: Steam	Del: Deleted		
	SD: Steam drive	TS: Temporarily suspended		
	SF: Steam flood			
	HC: Hydrocarbon			

# 2008 worldwide EOR survey

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Survey Editor

## PLANNED PROJECTS

TABLE A

Type and operator	Field	Location	Pay zone	Size, acres	Depth, ft	Gravity, °API	Start date
<b>CO<sub>2</sub> immiscible</b>							
Anadarko	Sussex	Johnson Co., Wyo.	Tensleep	2,544	9,000	29	2010
ARC Energy Trust	Redwater	Redwater, Alta., T58 R21 W4M	Leduc D-3	160	3,000	36	7/08
Denbury	Cranfield	Adams Co., Miss.	Lower Tuscaloosa	7,754	10,250	39	5/08
Denbury	Heidelberg West	Jones & Jasper Co., Miss.	Eutaw	915	5,000	22	10/08
<b>CO<sub>2</sub> miscible</b>							
Core Energy	Chester 6	Otsego, Mich.	A1 Carbonate	100	5,700	43	6/09
Core Energy	Niagaran "A"	Otsego, Mich.	Brown Niagaran	120	5,700	43	12/09
Core Energy	Niagaran "B"	Otsego, Mich.	Brown Niagaran	140	5,700	43	12/10
Denbury	Delhi	Richland, Madison, Franklin parishes, La.	Holt-Bryant	8,000	3,300	42	1/09
Denbury	W. Lazy Creek	Pike Co., Miss.	Lower Tuscaloosa	600	10,250	39	10/09
Fasken	Abell	Crane Co., Tex., Blk 1C, H&TC RR Survey	Devonian	769	5,200	40	1/09
Fasken	River Bend	Crane Co., Tex., Blk 1C, H&TC RR Survey	Devonian	470	5,300	40	1/09
Fasken	Hanford ROZ	Gaines, Tex.	San Andres	340	5,700	32	1/09
Kinder Morgan	Katz	Stonewall Co., Tex.	Strawn	5,483	4,800	40	5/09
Occidental	North Dollarhide	Andrews Co., Tex.	Clearfork	270	6,500	40	2008
Petrobras	Miranga	Brazil onshore	Taquipe	1,230	3,940	33	2008
Ridgeway Arizona Oil	Milnesand	Roosevelt Co., NM	San Andres	40	4,600	27	2008
<b>Steam</b>							
Carrizo	Camp Hill	Anderson Co., Tex	Carrizo	800	500	19	2008
Derek Oil & Gas Corp.	Newcastle	Weston Co., Wyo.	Newcastle	300	800	20	9/08
MegaWest	Marmaton River	Vernon, Calif.	Warner	10	250	15	2008
Nederlandse Aardolie Maatschappij (NAM)	Schoonebeek	Drenthe, Netherlands	Bentheim	4,000	2,600	25	2010
Shell Canada	Orion	Cold Lake, Alta., Township 64 Range 3 West of 4th	Clearwater	5,120	1,350	10	
Shell Canada	Peace River	Peace River Township 84 R18W5	Bluesky	16,340	1,800	8	
Wintershall	Emlichheim, Block 8/9 North	Germany, Lower Saxony, Grafschaft Bentheim	Valanginian	37	2,500-2,700	25	7/08
<b>Polymer</b>							
CNRL	Horsefly Lake	Alberta	Mannville	4,500	2,500	22	2009
Petrobras	Voador	Brazil offshore	Marlim	740	8,000	21	2009
Tecpetrol	El Tordillo	Chubut, Comodoro Rivadavia, Argentina	CR	848	5,500	21	8/08
Tecpetrol	El Tordillo	Chubut, Comodoro Rivadavia, Argentina	CR	164	5,500	21	2/08
Tecpetrol	El Tordillo	Chubut, Comodoro Rivadavia, Argentina	CR	82	5,500	21	12/09
Wintershall	Bockstedt	Lower Saxony, Germany	Valanginian	1	3,600-4,300	24	2010
<b>Combustion</b>							
Petrobras	Rio Preto Oeste	Brazil onshore	Mucuri	1,045	3,380	17	2009
<b>Surfactant-Polymer</b>							
Occidental	Midland Farms Unit	Andrews Co., Tex.	Grayburg	4,000	4,800	34	2010
Rex Energy	Lawrence	Lawrence Co., Tex.	Cypress, Bridgeport	2	800-1,400	36-40	2009

# DRILLING & PRODUCTION

## PRODUCING THERMAL EOR IN US

Type and operator	Field	State	County	Start date	Area, acres	No. wells prod.	No. wells inj.	Pay zone	Formation	Porosity, %
<b>Steam</b>										
Aera Energy	South Belridge	Calif.	Kern	1961	6,200	2,200	1,000	Tulare	US	35
Aera Energy	South Belridge	Calif.	Kern	1995	60	163	62	Diatomite Opal A	Tripol	60
Aera Energy	Coalinga	Calif.	Fresno	1965	574	376	68	Temblo	S	32
Aera Energy	Coalinga	Calif.	Fresno	1987	290	95	20	Etchegoin	S	34
Aera Energy	Cymric	Calif.	Kern	12/86	600	162	147	Tulare	S	36
Aera Energy	Lost Hills	Calif.	Kern	8/77	100	246	86	Etchegoin	US	40
Aera Energy	Lost Hills	Calif.	Kern	11/75	170	256	94	Tulare	US	40
Aera Energy	McKittrick	Calif.	Kern	3/88	160	118	116	Tulare	S	36
Aera Energy	Midway-Sunset	Calif.	Kern	11/67	1,600	1,749	167	Potter	S	30
Aera Energy	Midway-Sunset	Calif.	Kern	10/70	1,230	1,440	280	Monarch	S	25-32
Aera Energy	Midway-Sunset	Calif.	Kern	1984	15	3	0	Sub Lakeview	S	30
Aera Energy	Midway-Sunset	Calif.	Kern	1969	50	75	16	Metson	S	30
Aera Energy	Midway-Sunset	Calif.	Kern	1988	66	98	19	Marvic	S	30
Aera Energy	Midway-Sunset	Calif.	Kern	1980	152	170	1	Tulare	S	31
Aera Energy	Midway-Sunset Diatomite	Calif.	Kern	1997	48	38	0	Diatomite	S	65
Aera Energy	San Ardo	Calif.	Monterey	6/68	125	38	0	Aurignac	S	34.5
Aera Energy	San Ardo	Calif.	Monterey	3/80	546	170	49	Lombardi	S	32.5
Berry	Midway-Sunset	Calif.	Kern	11/02	15	35	20	Tulare	S	30
Berry	North Midway-Sunset	Calif.	Kern	1965	160	125		Potter	S	30
Berry	South Midway-Sunset	Calif.	Kern	1964	600	1,200		Monarch	S	30
Berry	Placerita	Calif.	Los Angeles	1987	120	50	58	Lower Kraft	S	27
Berry	Midway-Sunset South	Calif.	Kern	2005	40	50	4	Main 10-10	S	30
Berry	Poso Creek	Calif.	Kern	2005	200	77	3	Etchegoin/Chanac	S	33
Berry	North Midway-Sunset	Calif.	Kern	2006	100	87	0	Diatomite	Tripol.	65
Berry	Midway-Sunset South	Calif.	Kern	2007	10	4	0	Diatomite	Tripol.	65
Berry	Midway-Sunset South	Calif.	Kern	2007	60	10	1	Monarch	S	30
Chevron	Cymric 1Y	Calif.	Kern	1/80	380	510	0	Antelope		58
Chevron	Cymric	Calif.	Kern	5/75	552	360	80	Tulare	S	34.8
Chevron	Midway	Calif.	Kern	1964	1,214	2,039	225	Potter	US	30
Chevron	Midway	Calif.	Kern	1982	80	123	3	Tulare	US	31
Chevron	Midway	Calif.	Kern	1970	1,200	711	69	Spellacy	US	30
Chevron	West Coalinga	Calif.	Fresno	6/90	1,291	541	132	Temblo	S	34
Chevron	Kern River	Calif.	Kern	9/68	9,660	8,692	1,219	Kern River	S	32
Chevron	San Ardo	Calif.	Monterey	7/87	125	92	13	Lombardi	S	34
Derek Oil & Gas Corp.	LAK Ranch	Wyo.	Newcastle	4/04	20	1	3	Newcastle	S	22
Derek Oil & Gas Corp.	Newcastle	Wyo.	Weston	3/07	30	8	4	Newcastle Sandstone	S	22
ExxonMobil	South Belridge	Calif.	Kern	12/87	90	48	24	Tulare	S	38
Ivanhoe Energy	Midway-Sunset South	Calif.	Kern	9/01	90	45	40	Antelope	S	34
Ivanhoe Energy	Midway-Sunset South	Calif.	Kern	6/02	94	17	17	Antelope	S	34
Naftex	Edison 27-RT	Calif.	Kern	7/77	30	65	29	Chanac	S	30
Occidental	Kern Front	Calif.	Kern	1981	3,380	580	70	Etchegoin & Chanac	SS	30
Occidental	North Antelope Hills	Calif.	Kern	1980	300	44	2	Packwood & Point of Rocks	SS	35
Seneca Resources	Midway-Sunset	Calif.	Kern	1968	320	800	0	Potter Sand	US	37
Stockdale	Kern Front	Calif.	Kern	2/93	160	54	6	Etchegoin	S	30
Tidelands	Wilmington (Parcel A)	Calif.	Los Angeles	6/96	44	3	2	S Tar	US	31
<b>Hot water</b>										
Carrizo	Camp Hill	Tex.	Anderson	1994	37	54	25	Carrizo	S	37
Chevron	San Ardo	Calif.	Monterey	7/87	700	7	3	Aurignac	S	32
Chevron	West Coalinga	Calif.	Fresno	5/73	780	194	180	Temblo	S	34
<b>Combustion</b>										
Bayou State	Bellevue	La.	Bossier	1970	200	90	15	Nacatoch	S	32
Continental Resources	Medicine Pole Hills Unit	ND	Bowman	1985	8,960	15	9	Red River B & C	Dolo.	17
Continental Resources	West Medicine Pole Hills Unit	ND	Bowman	2001	14,335	18	12	Red River B & C	Dolo.	17
Continental Resources	Cedar Hills North Unit	ND	Bowman	2002	51,200	125	77	Red River B	Dolo.	18
Continental Resources	Buffalo	SD	Harding	1979	7,680	18	5	Red River B	Dolo.	20
Continental Resources	West Buffalo	SD	Harding	1987	4,640	11	5	Red River B	Dolo.	20
Continental Resources	South Buffalo	SD	Harding	1983	20,800	37	12	Red River B	Dolo.	20
Continental Resources	West Cedar Hills Unit	Mont.	Fallon	2003	7,800	12	5	Red River B	Dolo.	17
Continental Resources	South Medicine Pole Hills Unit	ND	Bowman	2003	11,500	10	6	Red River B	Dolo.	17
Encore Acquisition	Pennel Phase 1	Mont.	Fallon	2002	2,924	22	8	Red River A	Dolo.	17
Encore Acquisition	Pennel Phase 2	Mont.	Fallon	2002	10,010	56	24	Red River A	Dolo.	17
Encore Acquisition	Little Beaver	Mont.	Fallon	2002	10,400	57	29	Red River A & B	Dolo.	17

TABLE B

Permeability, md	Depth, ft	Gravity, °API	Oil, cp	Oil, °F	Prev. prod.	Satur. % start	Satur. % end	Proj. matur.	Tot. prod., b/d	Enh. prod., b/d	Proj. eval.	Profit	Project scope
1,000-3,000	300-1,400	13-14	1,500-4,000	95	Prim.	75	20	NC	33,000	33,000	Succ.	Yes	FW
1-5	1,000-1,800	28-30	2-50	110	WF	45	20	JS	5,000	1,500	Prom.	Yes	P
200-2,500	825-1,650	12-13	2,000-10,000	84-98	Prim.	60	10	HF	4,611	4,611	Succ.	Yes	FW
800-1,000	650-1,000	9-10	11,500-28,000	84	Prim.	55	10	HF	1,692	1,692	Succ.	Yes	FW
1,000-3,000	1,000	11-14	1,000-2,000	95-105	Prim.	65	20	NC	3,500	3,500	Succ.	Yes	FW
800-1,500	350	14	1,500-4,000	95	Prim.	55	20	HF	2,200	2,200	Succ.	Yes	FW
1,000-3,000	200	13	1,500-4,000	82	Prim.	60	20	HF	3,200	3,200	Succ.	Yes	FW
1,000-2,000	600	10-12	13,000-51,000	83	Prim.	60	20	HF	2,000	2,000	Succ.	Yes	FW
1,000-4,000	500-1,500	12		91-110	Prim.	60-75	15	HF	14,794	14,794	Succ.	Yes	FW
700-4,000	800-1,500	13	1,500-5,000	85-100	Prim.	50-75	15	HF	17,850	17,850	Succ.	Yes	FW
4,500	1,300	13	4,000	90	Prim.	60	15	NC	5	5	Succ.	Yes	LW
3,000	1,100	11	10,000	130	Prim.	75	15	HF	1,108	1,108	Succ.	Yes	LW
300	1,100	13	3,500	104	SS	65	15	HF	1,138	1,138	Succ.	Yes	LW
300-6,000	1,000	11-14	6,000	90	Prim.	60	16	HF	1,230	1,230	Succ.	Yes	FW
5	0-1,100	12.5	1,000	90	Prim.	75		HF	190	190	Succ.	Yes	LW
2,000	2,300	12	1,000	130	SS	55	27	NC	496	496	Succ.	Yes	FW
2,260	2,100	11	3,000	125	SS	55	27	HF	6,285	6,285	Succ.	Yes	FW
3,500	800	10	10,000	90	CS	60	23	JS	1,000	750	Succ.	Yes	RW
3,000	1,300	14	4,000	85	Prim.	70	15	NC	550	400	Succ.	Yes	FW
2,000	1,000	13	8,000	80	Prim.	70	15	HF	10,000	7,000	Succ.	Yes	FW
1,500	1,800	13	10,000	90	Prim./Cyclic	60		HF	3,000	2,700	Succ.	Yes	FW, RW, Exp. L
1,500	1,700	13	8,000	80	Prim./Cyclic	60		JS	400	300	TETT		RW
4,000	1,200	13	2,800	110	Cyclic	50		JS	700	650	Prom.		FW
1	800	14			SD	65		JS	1,530	1,530	Prom.	TETT	Exp. L, LW
1	1,100	14	4,000	90		60		JS		25	TETT	TETT	Exp. L, LW
800	1,400	14	4,000	90	C	65		JS		200	TETT	TETT	Exp. L, LW
5	1,500	13		110	Prim.	20-60		NC	21,200	21,200	Succ.	Yes	LW
2,700	1,200	12	5,200	100	SS	53	18	HF	10,200	10,200	Succ.	Yes	LW
3,000	1,500	12	4,000	100	C	60	15	HF	21,000	21,000	Succ.	Yes	FW
1,300	1,500	11	5,000	100	Prim.	50	43	HF	500	500	Succ.	Yes	Exp. L
2,250	1,500	12	5,000	100	Prim.	60	20	HF	9,400	9,400	Succ.	Yes	Exp. L
1,510	1,640	14	3,720	100	SS	44	14	HF	6,558	6,558	Succ.	Yes	RW
2,000	1,000	13	4,000	90	Prim.	50	15	HF	86,000	86,000	Succ.	Yes	FW
6,700	1,900	12	1,200	135	C	46	15	HF	2,750	2,750	Succ.	Yes	P (Exp. L)
100	1,000	16	20	54	NA	85	60	JS	40	40	TETT	TETT	P
100	800	20	20	54	SD	85	60	C	30	30	Prom.		P
2,000	1,250	13	450	95				HF	1,000	800	Succ.	Yes	FW
200-1,500	900-1,400	15-16	345	100	Prim.	80	60	NC	360	345	Succ.	Yes	FW
500-2,000	450	11	20,000	80	NA	85	60	JS	200	200	TETT	TETT	P (Exp. L)
2,800	1,000	14	2,000	90	Prim.	50	15	NC	550	550	Succ.	Yes	FW
2,000	1,800	14.8	1,525	95	Prim.	45	15	HF	4,000	3,500	Succ.	Yes	FW
2,500	1,200	13	2,000	80	Prim.	50	35	HF	160	120	Succ.	Yes	FW
1,000-10,000	1,100-1,700	12	3,000	100	Prim.	65	20	HF	6,000	4,500	Succ.		RW
1,000	2,000	13		80	SS	70		JS	700	550	Succ.	Yes	Exp. L
1,000	2,300	13	300	125	WF	58	28	JS	350	350	Succ.		P
3,500	450-500	19	1,200	75	Prim.	65	29	HF	125	100	Succ.		LW
2,000	2,100	12	900	135	SF	15	10	NC	253	226	Succ.	Yes	LW
1,500	1,350	14	3,350	100	SS	48	15		1,450	1,450	Succ.	Yes	RW
650	400	19	660		Prim.	94	49	HF	240	240	Succ.	Yes	FW
15	9,500	38	2	230	Prim.	52	30	HF	350	350	Succ.	Yes	FW
10	9,500	33	2	215	Prim.	50	33	JS	900	900	Succ.	Yes	FW
10	9,000	33	2	215	Prim.	55	26	JS	11,500	11,500	Succ.	Yes	FW
10	8,450	31	2	215	Prim.	55	20	NC	525	525	Succ.	Yes	FW
10	8,450	32	2	215	Prim.	55	20	HF	425	425	Succ.	Yes	FW
10	8,450	31	2	215	Prim.	55	20	HF	975	975	Succ.	Yes	FW
10	9,000	33	2	215	Prim.	55	26	JS	725	725	Succ.	Yes	FW
10	9,200	33	2	220	Prim.	50	30	JS	375	375	Prom.		FW
10	8,800	33	1.44	200	WF	75	39	JS	429	160	Succ.	Yes	Exp. L
10	8,800	33	1.44	200	WF	85	46	JS	1,550	100	Prom.	Yes	Exp. L
10	8,300	33	1.44	200	WF	83	60	JS	1,650	750	Prom.	Yes	Exp. L

# DRILLING & PRODUCTION

## PRODUCING CO<sub>2</sub>, OTHER GAS, AND CHEMICAL EOR IN US

Type and operator	Field	State	County	Start date	Area, acres	No. wells prod.	No. wells inj.	Pay zone	Formation	Porosity, %
<b>CO<sub>2</sub> miscible</b>										
Anadarko	Patrick Draw Monell	Wyo.	Sweetwater	9/03	3,500	56	47	Mesaverde Almond	S	20
Anadarko	Salt Creek	Wyo.	Natrona	1/04	3,500	174	153	Wall Creek 2 (Frontier)	S	18
Anadarko	Salt Creek	Wyo.	Natrona	5/07	5	1	1	Wall Creek 1 (Frontier)	S	17
Anadarko	Sussex	Wyo.	Johnson	12/04	25	4	1	Tensleep	S	10
Apache	Slaughter	Tex.	Hockley & Terry	5/85	569	24	11	San Andres	Dolo.	12.5
Apache	Slaughter	Tex.	Hockley & Cochran	6/89	8,559	228	154	San Andres	Dolo.	10
Chaparral Energy	Sho-Vel-Tum	Okla.	Stephens	9/82	1,100	60	40	Sims	S	16
Chaparral Energy	Camrick	Okla.	Beaver	4/01	2,320	32	19	Morrow	S	15
Chaparral Energy	North Perryton	Tex.	Ochiltree	12/07	2,500	6	3	Upper Morrow	S	15.2
Chevron	Rangely Weber Sand	Colo.	Rio Blanco	10/86	18,000	378	262	Weber SS	S	12
Chevron	Mabee	Tex.	Andrews-Martin	1/92	3,600	220	85	San Andres	Dolo.	9
Chevron	Slaughter Sundown	Tex.	Hockley Co	1/94	5,500	155	144	San Andres	Dolo.	11
Chevron	Vacuum	NM	Lea Co.	7/97	1,084	48	24	San Andres	Dolo.	12
ConocoPhillips	South Cowden	Tex.	Lea	2/81	4,900	43	22	San Andres	Dolo.	11.7
ConocoPhillips	Vacuum	NM	Lea	2/81	4,900	192	103	San Andres	Dolo.	11.7
Core Energy	Charlton 6	Mich.	Otsego	2006	60	1	1	Silurian-A1/Niagaran	LS/Dolo.	
Core Energy	Charlton 30-31	Mich.	Otsego	2005	285	2	1	Silurian-A1/Niagaran	LS/Dolo.	
Core Energy	Dover 33	Mich.	Otsego	1996	120	2	1	Silurian-Niagaran	LS/Dolo.	7
Core Energy	Dover 33	Mich.	Otsego	1996	85	2	1	Silurian-A1/Niagaran	LS/Dolo.	5
Core Energy	Dover 35	Mich.	Otsego	2004	80	2	2	Silurian-Niagaran	LS/Dolo.	7
Core Energy	Dover 35	Mich.	Otsego	2004	70	3	2	Silurian-A1/Niagaran	LS/Dolo.	5
Core Energy	Dover 36	Mich.	Otsego	1997	200	1	2	Silurian-Niagaran	LS/Dolo.	7
Core Energy	Dover 36	Mich.	Otsego	1997	190	1	2	Silurian-A1/Niagaran	LS/Dolo.	3
Denbury Resources	Lazy Creek	Miss.	Pike	12/01	840	5	6	Lower Tuscaloosa	S	23.4
Denbury Resources	Little Creek	Miss.	Lincoln & Pike	1985	6,200	30	34	Lower Tuscaloosa	S	23
Denbury Resources	Lockhart Crossing	La.	Livingston	12/07	3,398	11	3	First Wilcox	S	21
Denbury Resources	West Mallalieu	Miss.	Lincoln	1986	8,240	42	31	Lower Tuscaloosa	S	26
Denbury Resources	Martinville	Miss.	Simpson	3/06	280	5	1	Mooringsport	S	18
Denbury Resources	Martinville	Miss.	Simpson	3/06	212	2	2	Rodessa	S	12
Denbury Resources	McComb	Miss.	Pike	11/03	12,600	37	21	Lower Tuscaloosa	S	26
Denbury Resources	Smithdale	Miss.	Amite	3/05	4,100	5	3	Lower Tuscaloosa	S	23
Denbury Resources	Soso	Miss.	Jones/Jasper/Smith	4/06	2,600	37	17	Bailey 11701	S	17.4
Denbury Resources	Soso	Miss.	Jones/Jasper/Smith	4/06	1,800	16	8	Rodessa 11180	S	16.8
Denbury Resources	Brookhaven	Miss.	Lincoln	1/05	10,800	31	23	Lower Tuscaloosa	S	25.5
Denbury Resources	East Mallalieu	Miss.	Lincoln	12/03	880	11	8	Lower Tuscaloosa	S	26
Denbury Resources	Tinsley	Miss.	Yazoo	9/07	10,104		6	Woodruff	S	21
Energen Resources	East Penwell (SA) Unit	Tex.	Ector	5/96	1,020	47	22	San Andres	Dolo.	10
ExxonMobil	Greater Aneth Area	Utah	San Juan	2/85	13,440	143	120	Ismay Desert Creek	LS	14
ExxonMobil	Means (San Andres)	Tex.	Andrews	11/83	8,500	484	284	San Andres	Dolo.	9
Fasken	Hanford	Tex.	Gaines	7/86	1,120	23	26	San Andres	Dolo.	10.5
Fasken	Hanford East	Tex.	Gaines	3/97	340	7	4	San Andres	Dolo.	10
Great Western Drilling	Twofreds	Tex.	Loving, Ward, Reeves	1/74	4,392	32	9	Delaware, Ramsey	S	19.5
George R. Brown	Garza	Tex.		5/06	650			San Andres		
Hess	Adair San Andres Unit	Tex.	Gaines	11/97	1,100	19	18	San Andres	Dolo.	15
Hess	Seminole Unit-Main Pay Zone	Tex.	Gaines	7/83	15,699	408	160	San Andres	Dolo.	12
Hess	Seminole Unit-ROZ Phase 1	Tex.	Gaines	7/96	500	15	10	San Andres	Dolo.	12
Hess	Seminole Unit-ROZ Phase 2	Tex.	Gaines	4/04	480	16	9	San Andres	Dolo.	12
Hess	Seminole Unit-ROZ Phase 1	Tex.	Gaines	4/04	480	16	9	San Andres	Dolo.	12
Hess	Seminole Unit-ROZ Stage 1	Tex.	Gaines	12/07		6	2	San Andres	Dolo.	12
Kinder Morgan	SACROC	Tex.	Scurry	1/72	49,900	391	444	Canyon	LS	4
Merit Energy	Lost Soldier	Wyo.	Sweetwater	5/89	1,345	33	39	Tensleep	S	9.9
Merit Energy	Lost Soldier	Wyo.	Sweetwater	5/89	790	16	17	Darwin-Madison	S/LS-Dolo.	10.3
Merit Energy	Lost Soldier	Wyo.	Sweetwater	6/96	120	11	7	Cambrian	S	7
Merit Energy	Wertz	Wyo.	Carbon,	10/86	1,400	12	22	Tensleep	S	10
Merit Energy	Wertz	Wyo.	Sweetwater	9/00	810	12	18	Darwin-Madison	S/LS-Dolo.	10
Merit Energy	Northeast Purdy	Okla.	Garvin	9/82	3,400	85	49	Springer	S	13
Merit Energy	Bradley Unit	Okla.	Garvin/Grady	2/97	700	29	12	Springer	S	14
Murfin Drilling	Half-Gurney	Kan.	Russell	12/03	10	2	3	LKC C	LS	25
Orla Petco	East Ford	Tex.	Reeves	7/95	1,953	8	4	Delaware, Ramsey	S	23
Occidental	Alex Slaughter Estate	Tex.	Hockley	8/00	246	21	14	San Andres	Dolo./LS	10
Occidental	Anton Irish	Tex.	Hale	4/97	4,437	112	94	Clearfork	Dolo.	7
Occidental	Cedar Lake	Tex.	Gaines	8/94	2,870	159	98	San Andres	Dolo.	14
Occidental	Central Mallet Unit	Tex.	Hockley	1984	6,412	182	136	San Andres	Dolo./LS	11
Occidental	Cogdell	Tex.	Scurry/Kent	10/01	2,684	93	55	Canyon Reef	LS	13

TABLE C

Permeability, md	Depth, ft	Gravity, °API	Oil, cp	Oil, °F	Prev. prod.	Satur. % start	Satur. % end	Proj. matur.	Tot. prod., b/d	Enh. prod., b/d	Proj. eval.	Profit	Project scope
30	5,000	43	0.6	120	Prim., WF	39	24	HF	3,000	3,000	Succ.	Yes	RW, Exp. L
75	1,900	37	0.6		Prim., GI, WF	39	24	JS	5,000	6,000	Succ.	Yes	RW, Exp. L
30	1,500	35	0.6	99	Prim., WF	39	24	JS			Prom.		P, Exp. L
16	9,000	30	2.0	200	WF			NC			Prom.		P
6	4,900	32	1	110	WF			HF	600	580	Succ.	Yes	LW
3	5,000	32	2	107	WF	45	8	JS	5,800	4,000	Succ.	Yes	LW
70	6,200	30	3	115	WF	59	42	HF	1,100	1,100	Succ.	Yes	FW
63	7,260	38.5	2	152	WF	52		JS	1,275	1,175	Succ.	Yes	Phase 1&2 (1/2FW) Phase 1
63	7,300	38	2	152	WF	52		JS	200	170	TETT	TETT	
10	6,000	35	2	160	WF	38	29	JS	15,300	11,600	Succ.	Yes	FW
4	4,700	32	2	104	WF	36	10	NC	3,100	2,000	Succ.	Yes	Exp. L
6	4,950	33	1	105	WF	41	25	HF	5,950	4,747	Succ.	Yes	LW
22	4,550	38	1	101	WF	36	15	HF	4,500	2,950	Succ.	Yes	LW
11	4,500	38	1	101	Prim.	70	50	JS	450	250	Succ.	Yes	FW
11	4,500	38	1	101	Prim.	70	50	HF	6,200	5,200	Succ.	Yes	FW
0.1-100	5,450	43	0.8	103	Prim.	54	44	JS	10	10	TETT		Exp. L
0.1-100	5,450	42	0.8	103	Prim.	47	40	JS	75	75	Succ.		Exp. L
10	5,400	43	0.8	108	Prim.			NC		75	Succ.		RW
0.1-100	5,500	43	0.8	100	Prim.	51	40	C	0	0	Succ.		FW
5	5,400	43	0.8	108	Prim.			HF		76	Succ.		RW
0.1-100	5,500	41	0.8	101	Prim.	51	35	JS	210	210	Succ.		FW
5	5,500	41	0.8	108	Prim.			JS		125	TETT		RW
0.1-100	5,600	42	0.8	102	Prim.	52	42	HF	70	70	Succ.		FW
65	10,400	39		242	Prim.	27.4		JS	250	250	TETT		FW
90	10,750	40		250	WF	44	21	NC	1,650	1,650	Succ.		FW
50-4,000	10,100	38.9	0.35	212	WF	60.4		JS			TETT		FW
75	10,550	40		248	Prim.	44	21	HF	6,200	6,200	Succ.		FW
40	11,000	38		244	WF	54.7		JS	600	650	Succ.		RW
200	11,600	42		250	WF	63.5		JS	180	180	TETT		Exp. L
90	10,900	40		250	Prim./WF	52		JS	1,650	1,650	Prom.		Exp. L
90	11,000	41		250	Prim.	50		JS	600	600	TETT		Exp. L
273	11,950	43		234	Prim.	50.4		JS	1,350	1,350	Prom.		Exp. L
171	11,500	45		228	WF	54.7		JS	350	350	Prom.		Exp. L
60	10,300	40		250	Prim./GI/WF	47		JS	3,100	3,100	Prom.		Exp. L
75	10,550	40		248	Prim./WF	44		JS	1,800	1,800	Prom.		Exp. L
289	4,800	33		164	Prim./WF	24		JS	440		TETT		FW
4	4,000	34	2	86	WF	55	40	JS	766	450	Prom.	Yes	RW
5	5,600	41	1	125	Prim.	50		JS	6,000	3,000	Succ.	Yes	LW
20	4,300	29	6	97	WF			HF	10,000	8,700	Succ.	Yes	FW
4	5,500	32	1	104	Prim.	60.7	18.7	NC	300	300	Succ.		LW
4	5,500	32	1	104	WF	45	18.7	HF	45	45	Succ.		LW
32	4,900	36	2	105	WF	50		NC	170	170	Succ.	Yes	FW
	3,000	36											
8	4,852	35	1	98	WF			JS	2,300	900	Prom.		P
1.3-123	5,300	35	1	104	WF			HF	19,500	19,500	Succ.	Yes	P, FW
1.3-123	5,500	35	1	104	none			HF	1,200	1,200	Prom.		P
1.3-123	5,500	35	1	104	none			HF	1,800	1,800	Prom.		P
1.3-123	5,500	35	1	104	none			JS	1,800	1,800	Prom.		P
1.3-123	5,500	35	1	104	none			JS	50	50	Prom.		P
19	6,700	39	1	135	Prim./WF	63	39	HF	24,980	24,227	Succ.	Yes	FW
31	5,000	35	1	178	WF			NC	4,672	4,545	Succ.	Yes	FW
4	5,400	35	1	181	WF			NC	2,232	1,661	Succ.	Yes	FW
10	7,000	35			WF			JS	1,740	1,015	Succ.	Yes	FW
20	6,000	35	1	163	WF			NC	3,912	2,986	Succ.	Yes	FW
5	6,400	35	1	170	WF			NC	1,685	1,033	Succ.	Yes	FW
44	9,400	38	1	148	WF			HF	1,800	1,800	Succ.		FW
50	9,400	38	1	150	WF			JS	800	600	Prom.		FW, Exp. L
85	2,900	39.6	3	99	WF	35		NC	3.3	3.3	Disc.	No	P
30	2,680	40	1	82	Prim.	49	36	HF	128	128	Disc.	No	FW
5	4,950	31	1.8	105	WF	40	25	HF	370	300	Succ.	Yes	FW
4	5,800	30	3.0	109	Prim., WF	50	30	HF	5,100	4,000	Succ.	Yes	Exp. L
5	4,800	32	2.3	102	WF	50	15	HF	4,950	2,860	Succ.	Yes	LW
2	4,900	31	1.8	105	WF	48	25	HF	2,900	2,100	Succ.	Yes	FW
6	6,800	40	0.7	130	WF	46	15	HF	6,460	5,900	Succ.	Yes	Exp. L

# DRILLING & PRODUCTION

## PRODUCING CO<sub>2</sub>, OTHER GAS, AND CHEMICAL EOR IN US (CONTINUED)

Type and operator	Field	State	County	Start date	Area, acres	No. wells prod.	No. wells inj.	Pay zone	Formation	Porosity, %
Occidental	El Mar	Tex.	Loving	4/94	6,000	64	32	Delaware	S	22
Occidental	Frazier Unit	Tex.	Hockley	12/84	1,600	67	52	San Andres	Dolo./LS	10
Occidental	GMK South	Tex.	Gaines	1982	1,143	16	7	San Andres	Dolo.	10
Occidental	Igoe Smith	Tex.	Cochran	9/05	1,235	61	27	San Andres	Dolo.	11
Occidental	Lvelland	Tex.	Hockley	9/04	1,179	84	51	San Andres	Dolo.	12
Occidental	Mid Cross-Devonian Unit	Tex.	Crane, Upton & Crockett	7/97	1,326	13	5	Devonian	Tripol.	18
Occidental	N. Cross-Devonian Unit	Tex.	Crane & Upton	4/72	1,155	26	13	Devonian	Tripol.	22
Occidental	North Cowden Demo.	Tex.	Ector	2/95	200	10	3	Grayburg	Dolo.	10
Occidental	North Dollarhide	Tex.	Andrews	11/97	1,280	28	20	Devonian	Tripol.	22
Occidental	North Hobbs	NM	Lea	3/03	3,100	125	75	San Andres	Dolo.	15
Occidental	S. Cross-Devonian Unit	Tex.	Crockett	6/88	2,090	73	30	Devonian	Tripol.	21
Occidental	Salt Creek	Tex.	Kent	10/93	12,000	174	135	Canyon	LS	20
Occidental	Sharon Ridge	Tex.	Scurry	2/99	1,400	31	18	Canyon Reef	LS	10
Occidental	Slaughter (HT Boyd Lease)	Tex.	Cochran	8/01	1,240	37	24	San Andres	Dolo.	10
Occidental	Slaughter Estate Unit	Tex.	Hockley	12/84	5,700	194	150	San Andres	Dolo./LS	12
Occidental	Slaughter North West Mallet	Tex.	Cochran & Hockley	2008	1,048	39	24	San Andres	Dolo.	10
Occidental	Slaughter West RKM Unit	Tex.	Hockley	2006	1,204	51	33	San Andres	Dolo.	9
Occidental	South Welch	Tex.	Dawson	9/93	1,160	89	70	San Andres	Dolo.	11
Occidental	T-Star (Slaughter Consolidated)	Tex.	Hockley	7/99	1,700	51	35	Abo	Dolo.	7
Occidental	Wasson Bennett Ranch Unit	Tex.	Yoakum	6/95	1,780	115	89	San Andres	Dolo.	11
Occidental	Wasson Denver Unit	Tex.	Yoakum & Gaines	4/83	27,848	1,010	575	San Andres	Dolo.	12
Occidental	Wasson ODC Unit	Tex.	Yoakum	11/84	7,800	325	270	San Andres	Dolo./LS	10
Occidental	Wasson Willard Unit	Tex.	Yoakum	1/86	8,500	275	228	San Andres	Dolo.	10
Occidental	West Welch	Tex.	Gaines	10/97	240	0	0	San Andres	Dolo.	10
Pure Resources	Dollarhide (Devonian) Unit	Tex.	Andrews	5/85	6,183	83	66	Devonian	Dolo./Tripo- litic chert	13.5
Pure Resources	Dollarhide (Clearfork "AB") Unit	Tex.	Andrews	11/95	160	21	4	Clearfork	Dolo.	11.5
Pure Resources	Reinecke	Tex.	Borden	1/98	700	32	8	Cisco Canyon Reef	LS/Dolo.	10.4
Resolute Natural Resources	Greater Aneth	Utah	San Juan	10/98	1,200	12	10	Desert Creek	LS	12
Stanberry Oil	Hansford Marmaton	Tex.	Hansford	6/80	2,010	5	6	Marmaton	S	18.1
Whiting Petroleum	North Ward Estes	Tex.	Ward/Winkler	5/07	16,300	816	816	Yates	SS	16
Whiting Petroleum	Postle	Okla.	Texas	11/95	11,000	92	82	Morrow	SS	16
Whiting Petroleum	Postle Expansion	Okla.	Texas	1/07-1/09	7,000	72	62	Morrow	SS	16
XTO Energy Inc.	Goldsmith	Tex.	Ector	12/96	330	16	9	San Andres	Dolo.	11.6
XTO Energy Inc.	Cordona Lake	Tex.	Crane	12/85	2,084	64	26	Devonian	Tripol.	22
XTO Energy Inc.	Wasson (Cornell Unit)	Tex.	Yoakum	7/85	1,923	90	62	San Andres	Dolo.	8.6
XTO Energy Inc.	Wasson (Mahoney)	Tex.	Yoakum	10/85	640	45	30	San Andres	Dolo.	13
<b>CO<sub>2</sub> immiscible</b>										
Anadarko	Salt Creek	Wyo.	Natrona	10/05	5	4	1	Wall Creek 1 (Frontier)	S	17
Chaparral Energy	Sho-Vel-Tum	Okla.	Stephens	11/98	98	6	1	Aldridge	S	20
Denbury	Eucutta	Miss.	Wayne	4/06	2,100	25	29	Eutaw	S	27
Denbury	Martinville	Miss.	Simpson	3/06	180	3	1	Wash-Fred 8500	S	26
Kinder Morgan	Yates	Tex.	Pecos	3/04	26,000	551	121	San Andres	Dolo.	17
<b>Hydrocarbon miscible</b>										
BP Alaska	Prudhoe Bay	Alas.		12/82-2/87	55,000	376	162	Sadlerochit	S	22
BP Alaska	Eileen West End	Alas.		12/02	4,000	40	16	Sadlerochit	S	19
BP Alaska	Aurora	Alas.		12/03	10,000	16	12	Kuparuk River	S	20
BP Alaska	Borealis	Alas.		2004	9,000	31	19	Kuparuk River	S	20
BP Alaska	Orion	Alas.		2006	11,000	9	23	Schrader Bluff	S	25
BP Alaska	Polaris	Alas.		2004	5,000	8	10	Schrader Bluff	S	25
BP Alaska	Pt. McIntyre	Alas.		2001	6,240	55	15	Kuparuk River	S	23
ExxonMobil	South Pass Block 89	OCS		12/83	204	9	5	X and Y Series	S	26
ExxonMobil	South Pass Block 89	OCS		7/89	20	3	3	X Series	S	26
ConocoPhillips	Kuparuk River	Alas.		6/88-12/96	70,000	350	260	Kuparuk A&C	S	24
ConocoPhillips	Tarn	Alas.		11/98	2,400	29	11	Bermuda	S	21
ConocoPhillips	Alpine	Alas.		11/00	40,000	25	22	Alpine	S	19
<b>Hydrocarbon immiscible</b>										
BP Alaska	Milne Point	Alas.		3/95	20,000	100	90	Kuparuk River	S	22
<b>Nitrogen miscible</b>										
ExxonMobil	Jay-Little Escambia Creek	Fla./Ala.	Santa Rosa/ Escambia	1/81	14,415	53	38	Smackover	LS	14
<b>Nitrogen immiscible</b>										
ExxonMobil	Hawkins	Tex.	Wood	8/87	2,800	27	6	Woodbine-East FB	S	28
ExxonMobil	Hawkins	Tex.	Wood	1/94	7,790	267	20	Woodbine-West FB	S	28
Occidental	Elk Hills	Calif.	Kern	2005		800	60	Sub Scalez	S	28
<b>Chemical, polymer, surfactant</b>										
Cano	Delaware-Childers	Okla.	Nowata	6/06	20			Bartlesville		
Chaparral Energy	North Burbank	Okla.	Osage	12/07	480	19	9	Burbank	S	16.8

TABLE C

Permeability, md	Depth, ft	Gravity, °API	Oil, cp	Oil, °F	Prev. prod.	Satur. % start	Satur. % end	Proj. matur.	Tot. prod., b/d	Enh. prod., b/d	Proj. eval.	Profit	Project scope
24	4,500	41	1.1	97	Prim./WF	40		NC	350	270	Disc.	Yes	Exp. UL
4	4,950	31	1.8	105	WF	38	23	HF	1,250	925	Succ.	Yes	FW
3	5,400	30	3.0	101	WF	55	28	HF	610	375	Succ.	Yes	LW
4	5,040	34	1.5	105	WF	47	36	HF	700	440	Succ.		Exp. L
2	4,900	34	1.4	108	WF	45	30	JS	1,800	950	Succ.	Yes	Exp. L
2	5,400	42	0.4	104	Prim., Gl	60	20	HF	320	296	Disc.	Yes	FW
5	5,300	44	0.4	104	Prim., Gl	49	21	NC	1,045	835	Succ.	Yes	FW
2-5	4,200	34	1.5	91	WF	40	25	NC	230	80	Succ.	Yes	P
5	7,500	40	0.5	123	WF	38	23	HF	1,950	1,000	Succ.	Yes	FW
15	4,200	35	0.9	102	WF	35	24	HF	8,560	6,300	Succ.	Yes	Exp. L
4	5,200	43	0.6	104	Prim., Gl	43	24	HF	5,875	5,790	Succ.	Yes	FW
12	6,300	39	1.0	125	WF	89	15	HF	7,700	6,600	Succ.	Yes	LW
70	6,600	43	0.4	125	WF	39	26	HF	900	400	Succ.	Yes	Exp. L
4	5,000	31	1.6	108	WF	47	36	NC	1,080	1,040	Succ.	Yes	LW
5	4,950	31	1.8	105	WF	40	23	HF	4,100	2,430	Succ.	Yes	FW
4	4,950	32	2.0	105	WF	47	31	PP	950	0	TETT		
4	4,900	32	2.0	105	WF	42	29	JS	1,560	30	TETT		
4	4,900	34	2.3	98	WF	50	15	HF	1,180	865	Succ.	Yes	Exp. L
2	7,850	28	1.9	134	Prim./WF	75	45	HF	2,100	2,100	Succ.	Yes	Exp. L
8	5,250	34	1.2	105	WF	55	37	HF	4,320	3,510	Succ.	Yes	Exp. L
8	5,200	33	1.2	105	WF	51	31	HF	31,500	26,850	Succ.	Yes	FW
5	5,100	34	1.3	110	WF	49	34	HF	9,900	9,200	Succ.	Yes	FW
1.5	5,100	32	2.0	105	WF	56	41	HF	4,965	4,765	Succ.	Yes	Exp. L
3	4,900	34	2.3	98	WF	50	15	C	1,790	0	Disc.	No	P
9	8,000	40	0	122	Prim./WF	35	22	HF	2,420	1,970	Succ.	Yes	FW
4	6,500	40	1	113	Prim./WF	30	10	JS	230	124	Prom.	Yes	Exp. L
170	6,700	43.5	0.4	139	WF	35	10	JS	977	830	Succ.	Yes	Exp. L
18.3	5,700	42	1.5	129	WF	40	28	JS	1,200	400	Prom.	Yes	P
48	6,500	44	2	142	Prim.	43		NC	102	102	Succ.	Yes	FW
37	2,600	36	1.6	83	Prim., WF	26.5	21	JS	4,225	700	Prom.	Yes	FW
50	6,200	40	1	145	WF	37	25	HF	4,500	4,500	Succ.		Exp. L
35	6,200	40	1	145	WF	37	25		1,700	1,700	Early succ.		Exp. L
32	4,200	34	0.98	104	WF			JS	120	20	TETT		P
4	5,500	40	0.50	101	WF			HF	1,350	400	Prom.	Yes	LW
2	4,500	33	1.00	106	WF			HF	1,675	800	Succ.	Yes	LW
6	5,100	33	0.97	110	WF	54.4	39.2	HF	1,875	1,450	Succ.	Yes	LW
30	1,150	35	0.6	99	Prim., WF	32	24	C			Prom.		P Exp. L
270	5,400	19	45	105	Prim.	62	47	JS	72	70	Prom.	Yes	RW
250	5,050	22		152	WF	42		JS	3,000	3,000	Prom.		FW
1,000	8,500	11		198	Prim.	44.3		JS	270	0	TETT		RW
175	1,400	30	6	82	Gl	75	54	JS	27,940	6,280	Succ.	Yes	FW
400	8,800	27	0.9	210	WF	50		HF	100,000	28,000	Succ.		FW
130	8,800	26	1	235	WF	45		JS	12,000	1,200	Succ.		FW
50	6,700	24	2	150	WF	80		JS	9,500	2,600	Succ.		FW
100	6,600	24-28	2	160	WF	80		JS	12,700	3,700	Succ.		FW
150	4,500	15-23	7-140	85	WF	65		JS	12,500	0	TETT		FW
150	4,900	15-23	7-140	100	WF	65		NS	4,000		TETT		FW
200	8,800	27	0.9	182	WF	70		HF	30,000	7,000	Succ.		FW
1,000-1,500	10,000	38	0.40-0.60	180	Prim.			HF	2,100	2,100	Succ.	Yes	RW
1,000	11,000	38	1	165	Prim.			NC	200	200	Succ.	Yes	RW
50-500	6,000	24	2.0	160	WF/HC Imm.	75		JS	140,000	33,000	Succ.	Yes	Exp. L
20	5,200	37	0.6	142	None	65		JS	22,000		Succ.	Yes	RW
20	7,000	40	0.45	160	None	80		JS	95,000		Prom.	Yes	Exp. L
40	7,000	22	4	170	WF	75			33,600	3,200	Succ.		FW
35	15,400	51	0.2	285	WF			NC	10,700	10,700	Succ.	Yes	FW
2,800	4,600	16	25	168				NC	1,500	1,000	Succ.	Yes	RW
2,800	4,600	24	4	168				JS	9,000	3,000	Prom.		RW
1,500	2,500	25	20.0	110		60	10		20,000	5,000			
50	625 2,900	32 39	3	122	WF	53	47	JS	110	0	TETT	TETT	Phase 1

# DRILLING & PRODUCTION

## PRODUCING CANADIAN EOR PROJECTS

Type and operator	Field	Province	Start date	Area, acres	No. wells prod.	No. wells inj.	Pay zone	Formation	Porosity, %	Permeability, md
<b>Acid gas miscible</b>										
Apache Canada	Zama-Keg River	Alta.	6/04	3,840	12	12	Zama-Keg River	Dolo.	8	10-100
<b>CO<sub>2</sub> miscible</b>										
Anadarko Canada	Enchant	Alta.	9/04		3	1	Nisku	Dolo.	10-17	10-50
Apache Canada	Midale	Sask.	10/05	30,483	43	5	Marly & Vuggy	Dolo., LS	16.3	7.5
Devon Canada	Swan Hills	Alta.	10/04		5	1	Beaverhill Lake	LS	8.5	54
EnCana	Weyburn Unit	Sask.	9/00	13,800	403	122	Midale	Dolo., LS	15	10
Pengrowth Corp.	Judy Creek	Alta.	2/07	80	4	1	Swan Hills	LS	12	50
Penn West Energy Trust	Jofrre	Alta.	1/84	6,625	33	15	Viking	S	13	500
Penn West Energy Trust	Pembina	Alta.	3/05	80	6	2	Cardium	S	16	20
<b>Combustion</b>										
Crescent Point Energy Trust	Battrum	Sask.	10/66	4,920	82	25	Battrum/Roseray	S	26	1,265
Crescent Point Energy Trust	Battrum	Sask.	8/67	2,400	26	4	Battrum/Roseray	S	25	930
Crescent Point Energy Trust	Battrum	Sask.	11/65	680	37	9	Roseray	S	27	930
<b>Hydrocarbon miscible</b>										
Burlington Resources	Brassey	B.C.	8/89	6,043	6	6	Artex Triassic	S	16.6	137
Burlington Resources	Fenn-Big Valley	Alta.	4/83	1,268	26	7	Nisku	Dolo.	8	400
Conoco Canada	Goose River	Alta.	4/87	2,847	36	14	Beaverhill Lake/ Swan Hills	LS	8-18	3-270
Devon Canada	Swan Hills	Alta.	10/85	19,440	400	95	Beaverhill Lake	LS	8.5	54
ExxonMobil Oil Canada	Rainbow 'II'	Alta.	7/83	320	2	0	Keg River	Dolo., LS	8.5	100-5,000
ExxonMobil Oil Canada	Rainbow 'AA'	Alta.	9/72	800	4	0	Keg River	Dolo., LS	8.6	100-5,000
ExxonMobil Oil Canada	Rainbow South 'B'	Alta.	8/72	490	8	3	Keg River	Dolo.	6	40
Husky Oil	Rainbow KR B Pool	Alta.	6/84	2,500	69	11	Keg River	Dolo.	8	300
Husky Oil	Rainbow South KR E Pool	Alta.	4/94	478	6	3	Keg River	LS	9.1	50
Husky Oil	Rainbow South KR G Pool	Alta.	5/95	240	3	2	Keg River	LS	8	50
Husky Oil	Rainbow KR F Pool	Alta.	6/96	1,920	38	11	Keg River	Dolo.	6	1,000
Imperial Oil	Pembina 'G' Pool	Alta.	9/89	328	2	0	Nisku	Dolo.	8	900
Imperial Oil	Pembina 'K' Pool	Alta.	1984	126	1	0	Nisku	Dolo.	12.7	2,020
Imperial Oil	Pembina 'L' Pool	Alta.	1985	625	4	1	Nisku	Dolo.	10.5	1,060
Imperial Oil	Pembina 'M' Pool	Alta.	1983	192	2	1	Nisku	Dolo.	9	540
Imperial Oil	Pembina 'O' Pool	Alta.	11/83	346	3	0	Nisku	Dolo.	11.8	3,100
Imperial Oil	Pembina 'P' Pool	Alta.	10/83	420	3	1	Nisku	Dolo.	10.3	2,400
Imperial Oil	Pembina 'Q' Pool	Alta.	2/85	301	1	0	Nisku	Dolo.	9.8	1,970
Imperial Oil	Wizard Lake	Alta.	1969	2,725	20	0	Leduc D-3A	Dolo.	10.5	1,375
Imperial Oil	Rainbow "FF" Pool	Alta.	9/71	102	1	0	Keg River	Dolo.	7.3	180
Imperial Oil	Rainbow "T" Pool	Alta.	6/69	222	2	0	Keg River	Dolo.	8.6	320
Imperial Oil	Rainbow "Z" Pool	Alta.	2/71	221	2	1	Keg River	Dolo.	4.25	160
<b>Steam</b>										
CNRL	Tangleflags	Sask.	1987	285	10	10	Lloydminster	S	32.5	3,000-5,000
CNRL	Primrose	Alta.	1985	160,000	750		Clearwater	S	32	2,000-4,000
Devon Canada	Athabasca Oil Sands	Alta.	7/84	50,000	3	3	McMurray	US	30-35	0.1-10
Encana	Foster Creek	Alta.	5/97		27	27	McMurray	S	33	7,000
Encana	Christian Lake	Alta.	2003		6	6	McMurray	S		
Husky Oil	Pikes Peak	Sask.	1/81	400	102	27	Waseca	US	33	7,500
Imperial Oil	Cold Lake	Alta.	1964		4,000	4,000	Clearwater	US	35	1,500
Imperial Oil	Cold Lake (Enhanced cyclic steam)	Alta.	2002	32	20	8	Clearwater	US	32	2,000
Japan Canada Oil Sands	Hangingstone	Alta.	1997	2,400	15	15	McMurray	S		
Petro-Canada	MacKay	Alta.	2002		50	50				
Shell Canada	Orion	Alta.	9/07	5,120	22	22	Clearwater	S	33	2,000
Shell Canada	Peace River	Alta.	1979	4,900	97	109	Bluesky	S	26.5	2,000-4,000
Shell Canada	Peace River	Alta.	10/86	3,000	48	48	Cretaceous-Bullhead	S	28.5	100-2,000
Suncor	Firebag	Alta.	2003							
<b>Nitrogen</b>										
Talisman	Turner Valley	Sask.	2001							
<b>Polymer</b>										
CNRL	Pelican Lake	Alta.	2006	187,000	1,000	200	Wabiskaw	S	29	1,000-4,000



TABLE D

Depth, ft	Gravity, °API	Oil, cp	Oil, °F	Prev. prod.	Satur. % start	Satur. % end	Proj. matur.	Tot. prod., b/d	Enh. prod., b/d	Proj. eval.	Profit	Project scope
4,900	32-40	0.6-1.5	160-176	Prim.	40	5	JS	1,000	1,000	Prom.	Yes	Exp. L
4,600	29	2.2	95	WF			JS	170		TETT		P
4,600	30	3	149	WF	45		JS	5,900		Prom.	Yes	FW
8,300	41	0.4	225		30	5	JS					P
4,655	28	3	140	WF	45	30	JS	20,900	16,500	Prom.		LW, Exp. L
8,200	41.5	0.65	206	HC			JS			TETT		P
4,900	42	1.14	133	WF	38	23	HF	700	700	Succ.		FW
5,300	41	1	128	WF			JS			TETT		P
2,900	18	70.3	110	Prim.	66		HF	3,200	3,200	Succ.	Yes	FW
2,900	18	70	110	Prim.	62		HF	800	800	Succ.	Yes	FW
2,900	18	70	110	Prim.	70		HF	800	800	Succ.	Yes	FW
9,850	57	0.097	210		98	33	NC	1,500	1,500	Succ.	Yes	FW
5,249	32.8	1.34	136	Prim.	33		HF	590	590	Succ.	Yes	FW
9,150	41	0.3	230	WF	55	43	NC	1,900	1,700	Succ.		Exp. UL
8,300	41	0.4	225	WF	30	5	NC	14,300	4,100	Succ.	Yes	FW (Exp. L)
5,500	39	0.46	190	WF	45	15	HF	50	50	Prom.	Yes	FW
5,500	39	0.47	184	GI/WF	92	15	NC	10	10	Succ.	Yes	FW
6,200	40	0.3	183	Prim.			NC	598	598	Succ.	Yes	FW
6,000	38	0.83	188	WF	52	23	HF	8,810	8,810	Succ.	Yes	RW
6,400	43	0.39	195	WF	67	50	Term.	189	189	Disc.	Yes	RW
6,330	44	0.4	195	WF	67	50	Term.	19	19	Disc.	Yes	RW
6,000	48	0.25	180	WF/GI	50	35	JS	3,200	3,200	Succ.	Yes	RW
9,541	43.2	0.33	204	Prim.	80	5	NC	409	409	Succ.	Yes	FW
9,469	43.6	0.37	198	Prim.	82	5	NC	208	208	Succ.	Yes	FW
9,415	40.9	0.42	199	WF	88	5	NC	667	667	Succ.	Yes	FW
9,333	41.1	0.14	198	Prim.	93	5	NC	472	472	Succ.	Yes	FW
9,332	43.4	0.32	190	Prim.	84	5	NC	198	198	Succ.	Yes	FW
9,531	45.4	0.36	200	Prim.	87	5	NC	340	340	Succ.	Yes	FW
9,421	41.3	0.42	196	Prim.	91	5	NC	220	220	Succ.	Yes	FW
6,500	38	0.54	167	Prim.	93	12	NC	346	346	Succ.	Yes	FW
4,160	37	0.59	188	Prim.	90	5	NC	17	17	Succ.	Yes	RW
4,330	40	0.69	188	Prim.	88	5	NC	161	161	Succ.	Yes	RW
4,040	38	0.547	190	Prim.	73.5	5	NC	418	418	Succ.	Yes	RW
1,480	13	13,000	66	Prim.	90	38	TBD	5,000	5,000	Succ.	Yes	TBD
1,600	10-12	40,000-300,000	60	0	60	30	TBD	70,000	70,000	Succ.	Yes	TBD
500	8	5,000,000	45		85	15	HF	2,500-3,000	2,500-3,000	Succ.	Yes	Exp. L
1,600	10	500,000	55		85		JS JS	35,000 7,000	35,000 7,000			
1,640	12	25,000	70		85		HF	7,500	7,500	Succ.	Yes	RW
1,509	10.2	100,000	55		70		HF	154,000	154,000	Succ.		FW
1,395	10	200,000	55	CS	70		HF			Prom.		P
1,000							JS	9,000	9,000			P
							JS	30,000	30,000			
1,350	10	75,000	60	SAGD	70	10	JS	10,000		TETT		Exp. L
1,800	8	40,000-400,000	63	SF, SD, SS	0.8	0.54	HF	13,000	13,000	Succ.	Marginal	P, Exp. L
1,800	8	100,000	62		80		JS	5,000	5,000	Succ.		Exp. L
												P
1,500	13	1,000-4,000	60	Prim.	70	40	TBD	40,000	20,000	Succ.	Yes	TBD

# DRILLING & PRODUCTION

## PRODUCING EOR PROJECTS OUTSIDE US AND CANADA

Type and operator	Operator	Type project	Field	Start date	Area, acres	No. wells prod.	No. wells inj.	Pay zone	Formation	Porosity, %
<b>Argentina</b>										
Chubut	Tecpetrol	Polymer	El Tordillo	11/05	552	74	15	57	S	24
<b>Brazil</b>										
Bahia	Petrobras	CO <sub>2</sub> immiscible	Buracica	1991	1,670		7	Sergi	S	22
Bahia	Petrobras	CO <sub>2</sub> miscible	Rio Pojuca	1999			1	Agua Grande	S	
Espirito Santo	Petrobras	Steam	Fazenda Alegre	2001	1,255	59		Urucutuca	S	27
Rio Grande do Norte (RN)	Petrobras	Steam	Estreito	1984		700		Acu	S	25
Rio Grande do Norte (RN)	Petrobras	Steam	Alto do Rodrigues	1984		500		Acu	S	25
Sergipe	Petrobras	Steam	Carmopolis	1978		200		Barra Itiuba/ Carmopolis	S/Congl.	22
<b>China</b>										
Heilongjiang Province	Daqing Oilfield Ltd.	Polymer	Daqing	12/03	1,729	121	87	Saertu S1-2	S	27
Heilongjiang Province	Daqing Administration Bureau	Polymer	Daqing	6/99	124	8	6	Saertu S1-2	S	26
Xinjiang Province	Xinjiang Petroleum Adm. Bureau	Polymer	Karamay	5/96		9	4	Karamay	Cong.	21
Jilin Province	CNPC-Jilin	Microbial	Fuji	1994		44	44		S	22-26
Dongyin, Shandong Province	CNPC-Shengli Bureau	Steam	Sanjasi	1984	3,162	280		Ng, Ea, El, Ea	S	30
Dongyin, Shandong Province	CNPC-Shengli Bureau	Steam	Lean	1989	10,613	658		Ea, Ng	S/Congl.	15-30
Liaoling Province	CNPC-Liaohu Bureau	Steam	Gaoshen 2-3	1982	3,583	450		3rd sand	S/Dolo.	20-25
Nanyang, Henan Province	CNPC-Henan Bureau	Steam	Jinglou	1986	1,210	177		E	S	32
Nanyang, Henan Province	CNPC-Henan Bureau	Steam	Gueheng	1987	1,655	132		E	S	27-34
Pnain, Liaoning Province	CNPC-Liaohu Bureau	Steam	Shu I 7-5	1990	237	38	11	Middle	S	25.6
Pnain, Liaoning Province	CNPC-Liaohu Bureau	Steam	Shu I	1984	5,718	1,149		Middle & Upper	S	23-28
Pnain, Liaoning Province	CNPC-Liaohu Bureau	Steam	Xiao Wa	1992	2,100	311		2nd Dongying, 3rd sand	S	27.5
Pnain, Liaoning Province	CNPC-Liaohu Bureau	Steam	Huanxiling	1985	7,067	1,848		2nd and 3rd sand	S	32
Xinjiang Province	CNPC-Xinjiang Bureau	Steam	Karamay 9-1	1984	469	128	41	Qigu	S	32
Xinjiang Province	CNPC-Xinjiang Bureau	Steam	Karamay 9-2	1986	444	79	21	Qigu	S	32
Xinjiang Province	CNPC-Xinjiang Bureau	Steam	Karamay 9-3	1986	115	62	31	Qigu	S	31
Xinjiang Province	CNPC-Xinjiang Bureau	Steam	Karamay 9-4	1988	963	358	32	Qigu	S	30
Xinjiang Province	CNPC-Xinjiang Bureau	Steam	Karamay 9-5 - 9-9	1991	2,495	1,136		Qigu	S	32
Xinjiang Province	CNPC-Xinjiang Bureau	Steam	Karamay 6	1989	963	211	45	Qigu	S	31
Heilongjiang Province	CNPC-Daqing	Polymer	Lamadian-2	1/94	516	21	9	K	S	26
Heilongjiang Province	CNPC-Daqing	Polymer	Sarto	1/93	273	36	25	K	S	25
Heilongjiang Province	CNPC-Daqing	Polymer	Lamadian-1	6/94	559	25	16	K	S	26
Henan Province	CNPC-Henan	Polymer	Shuanghe	2/96	744	12	3	E	S	20
Jilin Province	CNPC-Jilin	Polymer	Fuyu	6/93	519	86	21	K	S	25
Liaoling Province	CNPC-Liaohu Bureau	Polymer	Huanxiling-16	3/93	346	11	3	B	S	28.5
Shandong Province	CNPC-Shengli Bureau	Polymer	Guodao, Pilpt	9/92	138	10	4	N	S	32
Shandong Province	CNPC-Shengli Bureau	Polymer	Guodong	1/91	1,008	52	39	N	S	33
Shandong Province	CNPC-Shengli Bureau	Polymer	Guodao	12/94		82	40	N	S	32
Tianjin City	CNPC-Dagang	Polymer	Gangxi 3-2, West	12/91	255	19	6	N	S	31
Tianjin City	CNPC-Dagang	Polymer	Dagang-West	10/91	277	11	6	N	S	31
Daqing	CNPC, Liupukang	Polymer		7/96	3,803			K		
Daqing	CNPC, Liupukang	Polymer		1/97	4,740			K		
Shengli	CNPC, Liupukang	Polymer		8/96	2,989			N		
Shengli	CNPC, Liupukang	Polymer		9/96	1,536			N		
Henan	CNPC, Liupukang	Polymer		9/96	2,717			E		
Nemangu	CNPC, Nemangu	Combustion	Kerxing	1996	6					
Jilin Province	CNPC, Jilin	Microbial		4/96						
Liaoling Province	Qi-40	Steam drive	Panjin	1996	1,962					
Snadong	Cheo-20	Steam drive	Dongyi	1996	964					
<b>Colombia</b>										
Mid. Magdalena Basin	Omimex	Steam	Teca	2/84	3,448	342		Oligocene A & B	S	28
Mid. Magdalena Basin	Omimex	Steam	Teca	1/91	60	20	12	Oligocene B	S	28
<b>Germany</b>										
Lower Saxony, Grafschaft Bentheim	Wintershall Holding AG	Steam	Emlichheim, Block 1	7/07	55	7	1	Valanginian	US	30
Lower Saxony, Grafschaft Bentheim	Wintershall Holding AG	Steam	Emlichheim, Block 2	6/05	22	4	1	Valanginian	US	30
Lower Saxony, Grafschaft Bentheim	Wintershall Holding AG	Steam	Emlichheim, Block 3	8/01	50	7	1	Valanginian	US	30
Lower Saxony, Grafschaft Bentheim	Wintershall Holding AG	Steam	Emlichheim, Block 4	2/02	22	5	1	Valanginian	US	30
Lower Saxony, Grafschaft Bentheim	Wintershall Holding AG	Steam	Emlichheim, Northeast Block 5/7 North	2/99	58	8	1	Valanginian	US	30
<b>India</b>										
Gujarat	ONGC	Polymer	Jhalora	6/93	11	4	1	Kalol Sand IX+X	S	33
Gujarat	ONGC	Combustion	Balol	3/90	6	4	1	Kalol Sand I	US	28
Gujarat	ONGC	Combustion	Lanwa	8/92	10	4	1	Kalol Sand I	US	30
Gujarat	ONGC	Combustion	Balol	10/96	3,450			Kalol sand-I		
Gujarat	ONGC	Combustion	Santhal	6/96	3,450			Kalol sand-I & II		
Gujarat	ONGC	Combustion	Bechradi	11/96	3,120			Kalol sand-I		
<b>Indonesia</b>										
Pekanbaru	PT Caltex	Steam	Duri	1/85	30,878	2,702	1,068	Pertama - Kedua	US	34
Pekanbaru	PT Caltex	Steam	Duri	7/94	27,000	1,093	532	Rindu	US	38
<b>Mexico</b>										
Bay of Campeche	Pemex	Nitrogen	Cantarell-Akal	5/00		19-22				

TABLE E

Permeability, md	Depth, ft	Gravity, °API	Oil, cp	Oil, °F	Prev. prod.	Satur. % start	Satur. % end	Proj. matur.	Tot. prod., b/d	Enh. prod., b/d	Proj. eval.	Profit	Project scope
500	5,450	21	5	185	WF	50.9	45.2	JS	2,270	604	Succ.	TETT	FW
	1,970	35	10.5	120	Prim, WF			NC				Yes	RW
	5,900	36	2	183	Prim			HF			Succ.	TETT	P
500-2,000	2,300	13	825	124	Prim	76		HF	9,500	9,500	Succ.	Yes	FW
4,000	1,150	15	1,700	100	Prim			NC	5,700	5,700	Succ.	Yes	FW
3,000	1,480	15	2,500	100	Prim			NC	2,500	2,500	Succ.	Yes	FW
200	2,460	21	500	122				NC	3,860	3,860	Succ.	Yes	FW
611	3,116	32	9.3	113	WF			HF		113	Prom.		Exp. L
600	3,268	32	9	113	WF	61.1	46.2	JS	684	809	Prom.	Prom.	P
198	1,063	28	17	74	WF	N/A	N/A	NC	N/A	N/A	Prom.	Prom.	P
180	935-1,572	31.5	19-31	86		54		NC			Succ.	Yes	Exp. L
5,000	3,673-3,938	11-19	9,200	131	Prim.	65		HF	9,116	9,116	Succ.		FW
3,000-4,500	2,885-3,132	11-18	10,000-40,000	129	Prim.	60		HF	21,735	21,735	Succ.		FW
2,200	5,081-5,740	16-19	1,000-2,000	150	Prim.	65		HF	10,136	7,868	Succ.		RW
1,500-3,000	459-1,936	16-25	9,600-16,000	70-90	Prim.	65		HF	1,965	1,965	Succ.		FW
1,351-7,134	513-1,627	14-22	6,000-137,000	66	Prim.	65-73		HF	1,663	1,663	Succ.		FW
1,601	3,345	13	15,000-18,900	129	C	65		HF	2,117	920	Succ.		RW
560-1,500	2,755-5,051	13-20	620-25,900	118-134	Prim.	65		HF	32,124	25,760	Succ.		FW
1,683	3,772-4,592	11-13	4,000-11,000	115-122	Prim.	65		JS	15,020	15,020	Succ.		FW
450-512	2,050-3,440	14	700-14,000	104	Prim.	65		HF	59,595	42,122	Succ.		FW
3,170	820	16-24	2,000	66	Prim.	65		HF	1,329	1,329	Prom.		RW
2,290	754	16-24	2,240	66	Prim.	65		HF	951	951	Prom.		RW
1,730	525-1,180	16-24	4,000	65	Prim.	65		HF	913	913	Disc.		RW
3,000	656-1,312	16-24	7,200	66	Prim.	65		HF	2,709	2,709	Prom.		RW
1,350-2,000	721-1,146	16-24	5,400-54,000	66	Prim.	65		HF	16,632	16,632	Succ.		RW
2,500-3,100	853-1,016	16.5-23	6,400-80,000	66	Prim.	65		HF	2,948	2,948	Succ.		RW
580	3,212	33	10	108	WF	70		HF	3,313	1,492	Prom.		Exp. L
871	3,376	34	9	115	WF	72		NC	8,913	4,149	Succ.		Exp. L
622	3,215	33	10	108	WF	70		HF	7,620	4,884	Succ.		Exp. L
173	4,568	33	7	162	WF	68		NC	953	391	Succ.		Exp. L
180	1,311	31.5	32	87	WF	73		JS	812	53	Prom.		RW
908	4,626	30	17	133	WF	65		HF	1,179	596	Succ.		Exp. L
875	3,911	15.5	46	154	WF	69		NC	1,072	387	Succ.		Exp. L
901	3,921	14	80	149	WF	71		HF	2,084	707	Prom.		Exp. L
875	3,911	15.5	46	158	WF	69		NC	3,984	1,026	Prom.		RW
412	3,238	21	19	127	WF	60		NC	1,082	446	Succ.		Exp. L
538	3,346	21	22	123	WF	60		NC	365	211	Succ.		Exp. L
	3,215	33											
	3,376	33.5											
	3,911	15.5											
	3,921	13.6											
	4,560	32.08											
	1,640-2,065	29											
	935-1,575	31.5											
	2,132-3,464	12											
	2,886-3,149	14-20											
1,200	2,100	12.8	2,965	108	Prim.	57		NC	13,000	8,000	Succ.	Yes	FW
1,200	2,100	12.8	2,965	108	SS	57	10	HF	1,000	500	Disc.	No	P (Exp. UL)
300-15,000	2,500-2,700	25	175	100	HW	10-90	10-90	JS	300	280	TETT	Good	FW
300-15,000	2,500-2,700	25	175	100	WF	10-90	10-90	JS	320	320	Prom.	Good	FW
300-15,000	2,500-2,700	25	175	100	HW	10-90	10-90	HF	470	465	Succ.	Good	FW
300-15,000	2,500-2,700	25	175	100	HW	10-90	10-90	HF	200	200	Succ.	Good	FW
300-15,000	2,500-2,700	25	175	100	WF	10-90	10-90	HF	630	615	Succ.	Good	FW
5,000	4,000	25.7	10	185	Prim.	82		HF			TETT		P
8,000-15,000	3,440	15.6	100-150	158	Prim.	70		NC	190	190	Succ.		P (FW)
8,000-15,000	3,440	13.5	550	158	Prim.	80		HF	165	165	Prom.		P (Exp. L)
	3,450	15.6											
	3,450	17											
	3,120	15.6											
1,600	550	22	350	100	Prim.	62	15	NC	190,000	190,000	Succ.	Yes	FW
1,600	350	22	350	100	Prim.	60	15	NC			Succ.	Yes	FW
								HF					

# DRILLING & PRODUCTION

## PRODUCING EOR PROJECTS OUTSIDE US AND CANADA (CONTINUED)

Type and operator	Operator	Type project	Field	Start date	Area, acres	No. wells prod.	No. wells inj.	Pay zone	Formation	Porosity, %
<b>Trinidad</b>										
Parrylands	New Horizon	Steam	Block E	7/01	744	6	0	Forest Sands	S	36
Forest Reserve	Petrotrin	CO <sub>2</sub> immiscible	Area 2102	6/76	58	6	2	Forest Sands	S	32
Forest Reserve	Petrotrin	CO <sub>2</sub> immiscible	Area 2121	1/74	29	2	2	Forest Sands	S	30
Forest Reserve	Petrotrin	CO <sub>2</sub> immiscible	Area 2124	1/86	184	3	1	Forest Sands	S	31
Forest Reserve	Petrotrin	CO <sub>2</sub> immiscible	EOR 34 - Cyclic	84	NA	11	0	Forest/MLE	S	29
Oropouche	Petrotrin	CO <sub>2</sub> immiscible	Oropouche	6/90	175	4	3	Retrench	S	30
Oropouche	Petrotrin	CO <sub>2</sub> immiscible	EOR 44	6/90	175	2	0	Retrench	S	30
Guapo	Petrotrin	Steam	Guapo	8/76	400	80	12	Cruse E & F	S	25
Point Fortin	Petrotrin	Steam	Cruse E	2/86	66	17	7	Cruse E	S	31
Point Fortin	Petrotrin	Steam	Parrylands	7/81	86	25	6	Forest	S	30
Point Fortin	Petrotrin	Steam	Parrylands E	7/81	86	16	7	Forest	S	30
Forest Reserve	Petrotrin	Steam	Phase I Cyclic	8/76	58	8	0	Forest Sands	S	31
Forest Reserve	Petrotrin	Steam	Phase I West	12/88	23	3	10	Forest Sands	S	30
Forest Reserve	Petrotrin	CO <sub>2</sub> immiscible	EOR 33	6/76	58	2	0	Forest	S	32
Forest Reserve	Petrotrin	CO <sub>2</sub> immiscible	EOR 26	1/74	29	0	0	Forest	S	30
Forest Reserve	Petrotrin	CO <sub>2</sub> immiscible	EOR 4	1/86	184	4	0	Cruse	S	31
Forest Reserve	Petrotrin	Steam	EOR 32	8/76	58	6	0	Forest Sands	S	31
Forest Reserve	Petrotrin	Steam	EOR 43	12/88	23	4	0	Forest Sands	S	30
Forest Reserve	Petrotrin	Steam	EOR 45	9/94	40	13	0	Forest Sands	S	30
Point Fortin	Petrotrin	Steam	Cruse E Pilot	2/86	66	18	5	Cruse E	S	31
Palo Seco	Petrotrin	Steam	North Palo Seco	10/69	300	150	40	Lower Morne L'Enfer	S	28
Palo Seco	Petrotrin	Steam	Central Los Bajos	2/74	190	110	16	Lower Morne L'Enfer	S	28
Forest Reserve	Petrotrin	Steam	Forest Reserve UMLE Pilot	3/04	20	12	3	UMLE	S	32
Forest Reserve	Petrotrin	Steam	Forest Reserve UMLE Exp.	3/06	23	13	2	Forest Reserve UMLE Exp.	S	32
<b>Turkey</b>										
Batman	TPAO	CO <sub>2</sub> immiscible	Bati Raman	3/86	12,890	212	69	Garzan	LS	18
<b>Venezuela</b>										
Maturin, Campo Mulata	PDVSA E&P	HC Miscible	Carito Central	12/96	12,000	45	10	NARICUAL	S	8-20
Maturin, Campo Mulata	PDVSA E&P	HC Miscible	Carito Oeste	11/97	9,500	26	5	NARICUAL	S	10-20
Maturin, Campo Furrial	PDVSA E&P	HC Miscible/Water	Furrial	8/98	36,769	102	43	NARICUAL	S	15
Anzoategui	PDVSA E&P	Steam	Bare (F.O.)	3/85	16,452	55	48	U1,3(YAC.MFB-53)	US	31.9
Anzoategui	PDVSA E&P	Steam	Bare (F.O.)	3/87	8,066	66	65	U2,3(YAC.MFB-23)	US	28.6
Anzoategui	PDVSA E&P	Steam	Arecuna (F.O.)	2/85	1,668	5	5	5	US	30.7
Anzoategui	PDVSA E&P	Steam	Arecuna (F.O.)	12/83	1,544	15	15	T(YAC.MFA-52)	US	30.6
Campo Cerro Negro	PDVSA E&P	Steam	B. E. P.-Cerro Negro	1984	49,090	186		Morichal-Memb.	S	35
Campo Jobo	PDVSA E&P	Steam	Jobo	12/69	25,410	88		Jobo Member	S	31
Campo Jobo	PDVSA E&P	Steam	Jobo-PE.T.C.	8/85	267	17		Morichal	S	30
Campo Jobo	PDVSA E&P	Steam	Jobo	12/69	34,099	301		Morichal	S	30
Campo Pilon	PDVSA E&P	Steam	West Pilon	12/69	1,065	8		Oficina-1	S	31
Zulia	PDVSA E&P	Steam	Bachaquero Lago	12/80	343	2		Bachaquero Superior	S	23
Zulia	PDVSA E&P	Steam	Lagunillas Lago	2/71	9,343	522	2	Bachaquero	S	34
Zulia	PDVSA E&P	Steam	Tia Juana	2/70	1,692	25		Lagunillas Inferior	S	31
Zulia	PDVSA E&P	Steam	Lagunillas	4/65	420	59		U.L.H.	S	35
Zulia	PDVSA E&P	Steam	Lagunillas	8/64	76	7		L.L.	S	33.7
Zulia	PDVSA E&P	Steam	Lagunillas	7/67	618	54		U.L.H.	S	35
Zulia	PDVSA E&P	Steam	Lagunillas	1/70	3,025	147		L.L.	S	33.7
Zulia	PDVSA E&P	Steam	Lagunillas	4/70	2,565	220		U.L.H.	S	35
Zulia	PDVSA E&P	Steam	Lagunillas	8/70	2,114	175		U.L.H.	S	35
Zulia	PDVSA E&P	Steam	Lagunillas	11/79	3,101	261		L.L.	S	33.7
Zulia	PDVSA E&P	Steam	Lagunillas	10/80	3,565	297		U.L.H.	S	35
Zulia	PDVSA E&P	Steam	Bachaquero	11/84	7,795	640		Post-Eocene	S	33.5
Zulia	PDVSA E&P	Steam	East Tia Juana	4/59	341	32		L.L.	S	33.5
Zulia	PDVSA E&P	Steam	East Tia Juana	2/61	35	7		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	East Tia Juana	9/64	411	36		L.L.	S	38
Zulia	PDVSA E&P	Steam	East Tia Juana	5/68	2,755	201		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	East Tia Juana	8/68	3,218	250		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	East Tia Juana	12/68	1,961	168		L.L.	S	38
Zulia	PDVSA E&P	Steam	East Tia Juana	3/69	1,768	145		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	East Tia Juana	8/69	1,642	148		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	East Tia Juana	12/69	392	36		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	East Tia Juana	11/74	1,848	135	21	L.L.	S	38.1
Zulia	PDVSA E&P	Steam	East Tia Juana	9/86	1,380	144		L.L.	S	36
Zulia	PDVSA E&P	Steam	Main Tia Juana	10/63	867	82		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	Main Tia Juana	6/66	144	15		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	Main Tia Juana	7/67	1,291	114		L.L.	S	38.8
Zulia	PDVSA E&P	Steam	Main Tia Juana	7/67	1,500	134		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	Main Tia Juana	10/67	2,323	197		L.L.	S	38.1
Zulia	PDVSA E&P	Steam	Main Tia Juana	10/67	1,286	86		L.L.	S	38.1

TABLE E

Permeability, md	Depth, ft	Gravity, °API	Oil, cp	Oil, °F	Prev. prod.	Satur. % start	Satur. % end	Proj. matur.	Tot. prod., b/d	Enh. prod., b/d	Proj. eval.	Profit	Project scope
750	850-1,200	16-18	5,000	97	Prim.	80		JS	100		TETT		LW
175	3,000	19	16	120	Prim.	56		HF	43	43	Succ.	Yes	Exp. L
150	2,600	17	32	120	Prim.	60		HF	0	0	Prom.		Exp. L
300	4,200	25	6	130	WF	44		TS	78	78	Prom		Exp. L
150	2,025	17	11-145	120	Prim.	-		C	15	15	Prom	Yes	Exp. L
36	2,400	29	5	120	Prim.	53	48	HF	32	32	Prom.		P
36	2,400	29	5	120	Prim.	53		C	15	15	Prom.	No	P
300	2,400	11	5,500	100	Cyclic	75		HF	792	792	Succ.	Yes	RW
95	1,400	17	175	110	Prim.	58		HF	325	325	Prom.		P
500	1,100	11	5,500	104	Prim.	75	20	HF	89	89	Succ.	Yes	RW
500	1,100	11	5,000	105	Prim.	75		HF	235	235	Succ.	Yes	RW
205	1,200	19	32	105	Prim.	57	15	NC	69	69	Disc.	No	RW
430	1,500	17	160	105	Prim.	67	25	JS	76	76	Disc.	No	RW
175	3,000	19	16	120	Prim.	56		C	26	26	Succ.	Yes	Exp. UL
150	2,600	17	32	120	Prim.	60	NA	Term.	0	0	Prom.	Yes	Exp. UL
300	4,200	25	6	130	WF	44		C	176	176	Succ.	Yes	Exp. L
205	1,200	19	32	105	Prim.	57		C	0	0	Disc.	No	Exp. UL
430	1,500	17	160	105	Prim.	67		C	17	17	Disc.	No	Exp. UL
270	1,100	14	250	110	Prim.	70		C	50	50	Disc.	No	Exp. UL
250	1,400	17	175	110	Prim.	58		HF	254	254	Succ.	Yes	P
250	1,700	16	550	110	Prim.	70		HF	1,200	1,200	Succ.	Yes	RW
250	1,500	16	550	105	Prim.	70		HF	800	800	Succ.	Yes	RW
300	1,700	13	550	100	Prim.	75		JS	307	307	Prom.		P
300	1,700	13	550	100	Prim.	75		JS	633	633	Prom		RW
58	4,265	13	592	129		78		NC	7,000	7,000	Succ.	Yes	FW
10-1,000	13,000-14,500	21 - 33	0.1 - 0.5	290	Prim.	80		JS	150,000	80,000	Succ	yes	FW
10-1,000	13,000-14,500	24 - 36	0.1 - 0.5	290	Prim.	80		JS	80,000	45,000	Succ	yes	FW
600	13,000-14,300	26	0.5	290	WF	75		JS	410,000	41,000	Prom	yes	FW
6,600	2,650	9.3	376	131	Prim.	88	75	HF	65,000	20,000	Succ.	Yes	RW (Exp. L)
5,000	3,050	9.2	351	136	Prim.	83	75	HF	4,500	500	Succ.	Yes	RW (Exp. L)
5,800	2,850	10	370	135	Prim.	82	74	NC	0	0	Disc.	No	P (Exp. UL)
4,500	3,150	9.8	560	140	Prim.	80	72	NC	0	0	Prom.	Yes	RW
10,000	2,000	8.5	5,500	125	Prim.	80		HF	650	400	Succ.	Yes	P (Exp. L)
2,500	3,260	13.5	138	130	Prim.	80		HF	14,101	0	Succ.	Yes	FW
5,000	3,600	9	1,952	132	Prim.	85		NC	1,530	0	Succ.	Yes	P (Exp. L)
5,000	3,600	9	1,952	132	Prim.	85		JS	5,607	514	Succ.	Yes	FW
8,000	3,350	10	727	139	Prim.	82		JS	23,912	0	Succ.	Yes	RW
1,500	3,400	14	185	135	Prim.	85		JS	32,517	17,997	Succ.	Yes	P (Exp. L)
4,000	2,690	12	600	128	Prim.	84		HF	44,219	31,135	Succ.	Yes	FW
1,250	2,537	15	93	119		72		HF	5,916	3,815	Succ.	Yes	P (Exp. L)
	2,300	11.4	3,500	117	Prim.	75	44	NC	2,318	2,318	Succ.	Yes	FW
	2,850	15.2	2,500	125	Prim.	80	50	NC	257	257	Succ.	Yes	FW
	2,300	11.4	3,500	117	Prim.	75	46	NC	2,629	2,629	Succ.	Yes	FW
	2,850	15.2	2,500	122	Prim.	87	54	HF	2,675	2,675	Succ.	Yes	FW
	2,300	11.8	7,000	115	Prim.	75	54	HF	21,016	21,016	Succ.	Yes	FW
	2,300	11.4	3,500	118	Prim.	75	63	HF	5,872	5,872	Succ.	Yes	FW
	2,850	15	580	126	Prim.	87	66	HF	4,399	4,399	Succ.	Yes	FW
	2,300	11	20,000	125	Prim.	75	63	HF	19,920	19,920	Succ.	Yes	FW
575	2,000	13	500	117	Prim.	84.5	40	JS	15,190	15,190	Succ.	Yes	FW
2,500	1,500	12	1,000	108	Prim.	85	48	HF	470	470	Succ.	Yes	FW
1,300	1,746	13.6	13,000	100	Prim.	85	45	NC	171	171	Succ.	Yes	P
3,000	1,250	12	3,000	104	Prim.	85	65	HF	489	375	Succ.	Yes	FW
	1,200	12	750	104	Prim.	85	64	HF	4,806	4,139	Succ.	Prom.	FW
3,000	872	12	5,000	104	Prim.	81	74	HF	7,778	7,257	Succ.	Yes	FW
	1,250	12	7,500	106	Prim.	85	67	HF	6,415	6,052	Succ.	Yes	FW
780	1,700	12.1	2,000	111	Prim.	85	67	HF	4,233	3,636	Succ.	Yes	FW
1,300	1,250	10	12,000	102	Prim.	85	77	HF	5,316	5,316	Succ.	Yes	FW
	1,000	11.1	10,000	95	Prim.	85	72	HF	963	963	Succ.	Yes	FW
780	1,597	12	1,000	111	Prim.	85	46	HF	2,100	2,100	Succ.	Yes	FW
1,000-4,000	760	9-11	5,000-30,000	110	Prim.	85	82	HF	6,857	6,857	Succ.	Yes	FW
1,400	1,750	13.1	750	113		85	57	NC	842	842	Succ.	Yes	FW
675	1,250	13.1	1,300	104	Prim.	85	65	NC	120	120	Succ.	Yes	FW
675	1,209	13.1	5,000	123	Prim.	85	61	HF	3,412	3,412	Succ.	Yes	FW
1,000	1,400	13.1	1,000	110	Prim.	85	65	HF	4,224	4,224	Succ.	Yes	FW
1,000	1,746	13.1	4,100	110	Prim.	85	62	HF	4,264	3,878	Succ.	Yes	FW
1,000	1,746	13.1	1,200	110	Prim.	85	76	HF	1,129	1,129	Succ.	Yes	FW