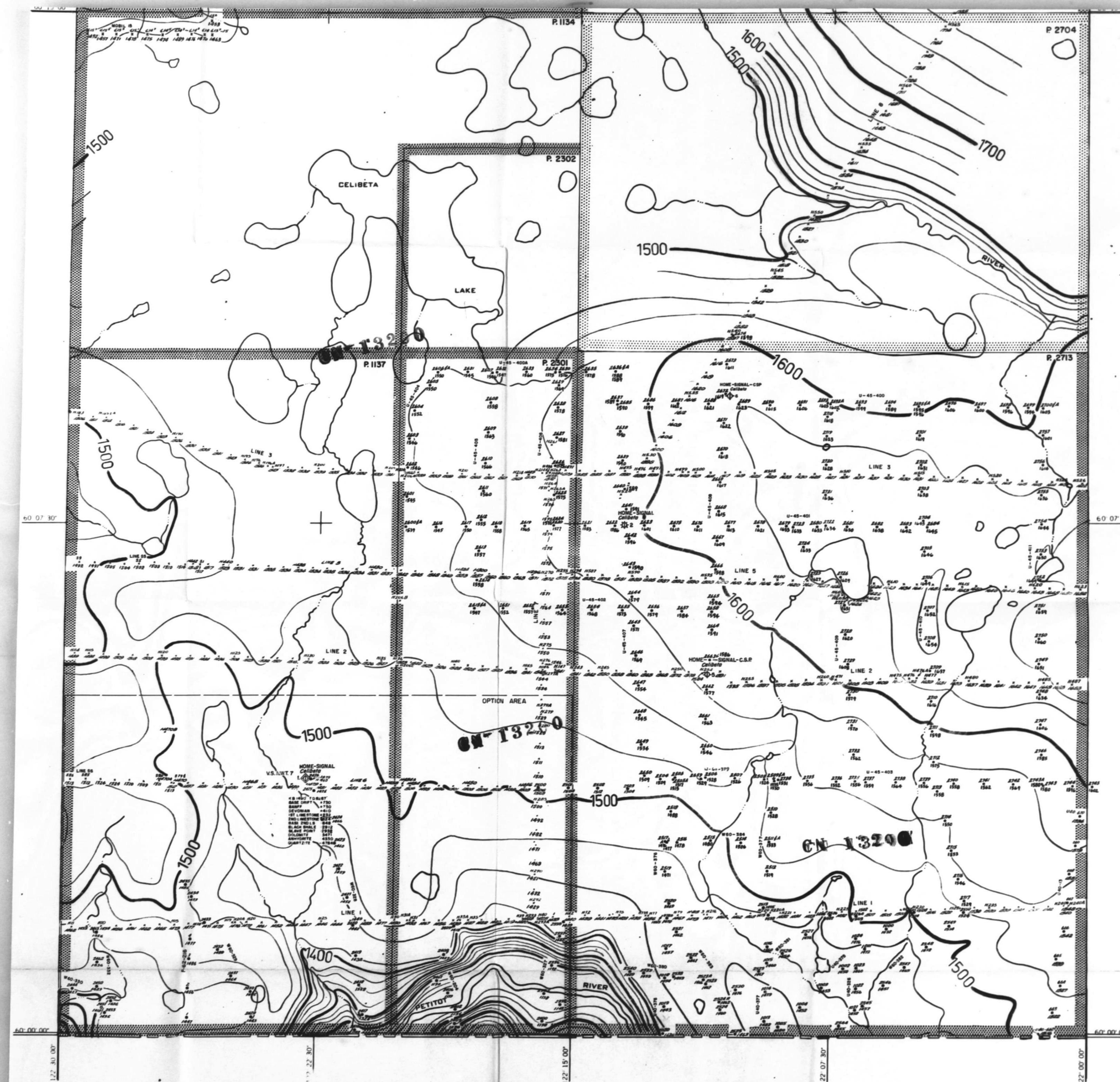




MAP EVALUATION		SHOOTING HISTORY (Not in detail)		INTERPRETIVE HISTORY		PAN AMERICAN PETROLEUM CORPORATION	
Qualification considers type of map or plot, amount of relief considered critical, quality of data and density of control, (geophysical or geological).		NOTE: MAPS SURVEY ADJUSTED TO THE N.T.S. LINE IN 1963		DATE: May 29, 1963		EDMONTON DISTRICT	
- - - - - Geographical Data - - - - - Relative Geophysical Data - - - - - Quaternary Geophysical Data - - - - - Unavailable Geophysical Data		INCL. DATES: Jan - May 1963 SHOT BY: J. D. Smith SHOT FOR: Line 1 to 8 S.P. AND/OR LINE NO.: 1 to 8 FINAL REPORT NO.: 1 to 8 DATE: May 29, 1963 INTERP.: J. D. Smith CO AFFIL.: J. D. Smith APPROX. LOC. ON MAP: 1 to 8		DATE: May 29, 1963 INTERP.: J. D. Smith CO AFFIL.: J. D. Smith APPROX. LOC. ON MAP: 1 to 8		AREA: Celibeta PROVINCE: Northwest Territories HORIZON: Surface TYPE OF MAP: Elevation SHOT BY: J. D. Smith INCL. DATES: Jan. 1963 INTERP. BY: J. D. Smith REPORT NO.: E-43-3 DATE: May 29, 1963	
						REMARKS: GEOLOGICAL INT. DATE: FROM GEOPH. REPORT NO. (s) DATED: REMARKS:	
						CN 13200	

SURVEY

**Conducted by United Geophysical Company
for**

Pan American Petroleum Corporation

**On Permits - 2713 - March 9/62 - March 31/63
2301 - Sept. 18/62 - May 18/63
2704 - March 9/62 to March 21/63**

REPORT OF GEOPHYSICAL AND SEISMOGRAPH REFLECTION SURVEY

Conducted By

UNITED GEOPHYSICAL COMPANY

for

PAN AMERICAN PETROLEUM CORPORATION

on

PERMIT NOS.

2713

2301

2704

Prepared By

**M. A. Knock
District Geophysicist**

**Submitted in accordance with Government Regulations
under Section 30 (c) of the Territorial Lands Act**

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Structure Contour Map	

**Maps are enclosed in the envelope at the back
of the report.**

TEXT

INTRODUCTION

During the permit renewal periods, a seismograph reflection program was conducted by United Geophysical Company for Pan American Petroleum Corporation. United Party #45 spent some 15.1 operating days working on permit nos. 2713, 2301 and 2704, plus an additional 6.7 operating days moving to the area. The field operations commenced on January 18th, 1963.

Seismic trails were cut and cleaned by Bruce Rome Ltd. who utilized a TD-14 cat as well as a D-6 cat.

The crew was under the supervision of Mr. F. Foo, Party Manager.

Interpretation was carried on simultaneously with field work by Pan American's interpretive staff located in Edmonton, Alberta.

The area was worked with wheeled equipment. The camp consisted of three units - an expandable kitchen-sleeper combination unit, an expandable utility-sleeper combination unit, each mounted on a "highboy" and an office trailer.

There were no unusual operating problems encountered during this operation.

SEISMIC TECHNIQUE

Shot holes average 45 feet in depth. Shot depth was determined by near-surface lithology with best results obtained when the shot was detonated in clay.

Normal charge size averaged 5 pounds per shot. Three hole patterns were used throughout the area.

The instrument used by this party was the FA44B type manufactured by Pan American Petroleum Corporation.

The reflection method was used to obtain the subsurface data throughout the area.

The data that appears on the subsurface maps are vertical two-way times between an arbitrary reference plane and the particular horizon mapped.

Respectfully Submitted,

PAN AMERICAN PETROLEUM CORPORATION

By 
M. A. Knock
District Geophysicist

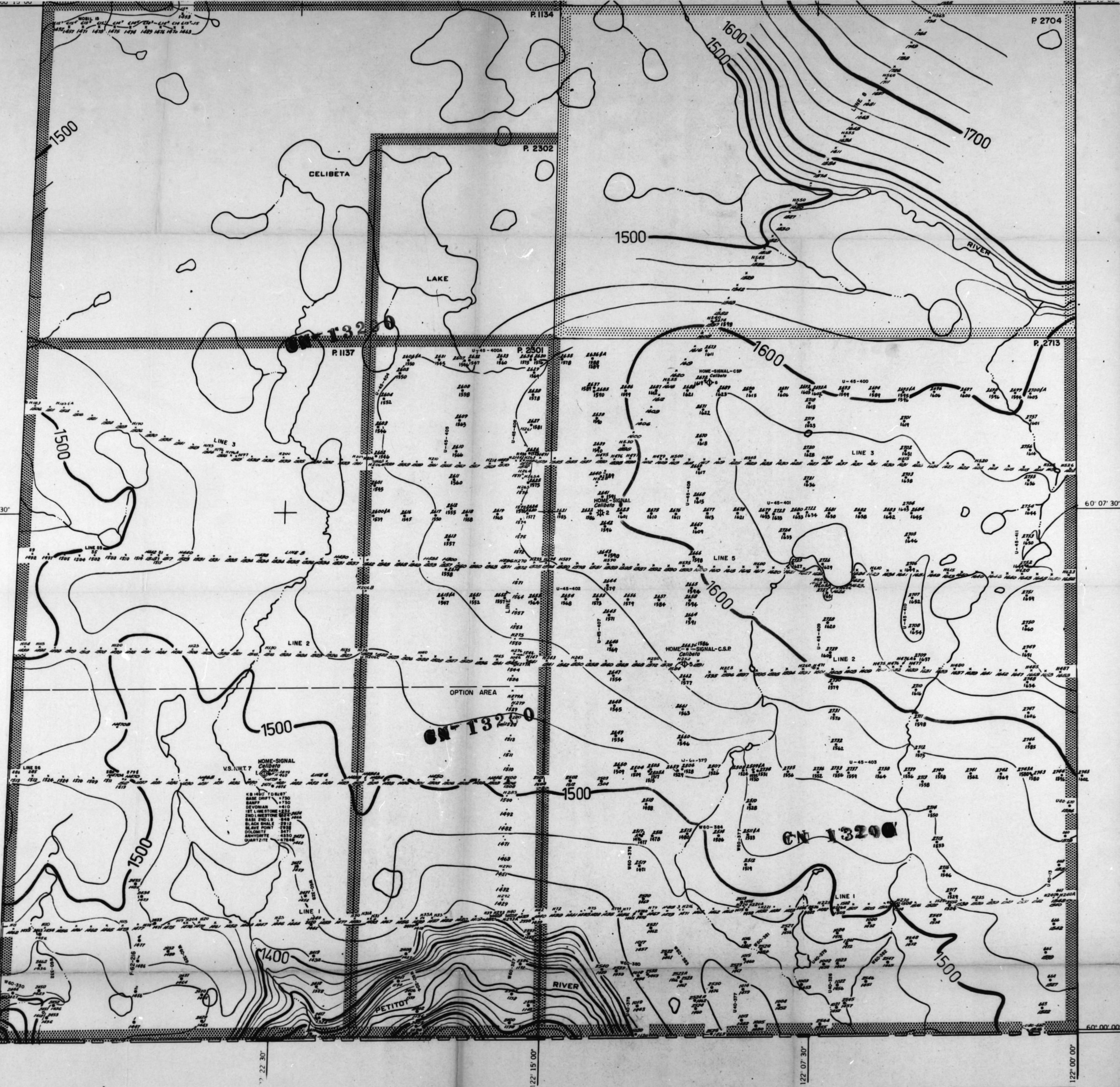


where three-hole pattern was used, shot holes were 100' apart.

Party No. - United #45
 Area - Celibeta
 Permit Nos. - 2713, 2301, 2704
 Spread Length - 2870



C July 10/63



MAP EVALUATION

Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)

----- Geological data
----- Reliable Geophysical Data
----- Qualitatively Reliable Geophysical Data
----- Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

NOTE: MOBIL SURVEY ADJUSTED 1600 FT SOUTH TO THE H-3 LINE ON CN-13200

INCL DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's
Jan - Mar, 1959	Holland	Can. Southern	Lines 1 to 5
Jan - Feb, 1960	United 40	Pan American	Lines 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

INTERPRETIVE HISTORY

FINAL REPORT No.	DATE	INTERP.	CO. AFFIL.	APPROX. LOC. ON MAP
Final	May 29, 59	G.E. Longshaw	United 83	60°00'-60°20'
9	March 18, 60	F.T. Foo	United 40	NE 8 SE Quadrant
213	March 8, 60	J.D. Houston	Western 62	122°26' 60°00'
E-62-1	Jan. 19, 1962	E. Lipsett	Pan Am	Complete Grid.
E-62-20	Apr. 19, 1962	J. Harding	Pan Am	S.E. Corner
E-62-41	JULY 28, 1962	E.K. Zarudzki	Pan Am	S.W. Corner
E-62-48	SEPT. 14, 1962	J. WERNER	PAN AM	N.W. QUADRANT
E-63-6	JAN. 21, 1963	RALPH LUNDEN	PAN AM	S.W. CORNER
E-63-9	FEB. 19, 1963	R.S. RYAN	PAN AM	S.E. CORNER
E-63-13	MAR. 26, 1963	E.F.K. ZARUDZKI	PAN AM	S.E. CORNER

This map replaces/supplements Registration No. _____ which is to be destroyed/kept. (Refer transmitter dated _____)

Map distribution: ☐ Division ☐ General Office

Other maps prepared this report:

R-T 1st H.R.L. - 3rd H.R.L.

R-Y 1st H.R.L. - Top Corb.

R 1st H.R.L.

T 3rd H.R.L.

Y Top Corb.

This map checked by _____ Pan Am Geophysicist / Geologist

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VELOCITY PLAT AND EFFECT OF REF. PLANE AND/OR VELOCITY ON TIME MAP

PAN AMERICAN PETROLEUM CORPORATION

CANADIAN DIVISION
EDMONTON DISTRICT

AREA: Celibeta GRID: CN19/SE
PROVINCE: Northwest Territories SCALE: 1"=4000'
HORIZON: Surface
TYPE OF MAP: Elevation CONTOUR INT. 25 ft
SHOT BY: _____ FOR: _____
INCL. DATES: Jan. 1963
INTERP. BY: R.Ryan, E.F.K. Zarudzki CO. AFFIL.: Pan Am.
REPORT No. E-63-13 DATE: Mar. 26, 1963
REMARKS: _____

GEOLOGICAL INT: _____ DATE: _____
FROM GEOPH. REPORT No(s) DATED: _____
REMARKS: _____

CN 13200