HOLE NO. 101 AREA Sec. 10, 13-9

DEPTH	READING SCALE 4	READING SCALE 5
561		4
552		5
551		6
550½		7
550		9
549½		4
548		4
547		3
543		4
542		5
541		5
540		4
539		3
537		4
522		3
458		4
457		4
456½		7
456		4
455		4
441		2
435		3
432		6
431		7
430		4
429		4
427		2
393		4

DEPTH	READING SCALE 4	READING SCALE 5
375		2
334		3-4
319		3
318		5
317½		7
317		7
316½		5
316		4
315½		3
315		
311		5
310		4
309		4
308		3
302		4
301		4
300		3
299		4

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CASING 490'

TOTAL DEPTH 565'

HOLE NO. 102 AREA Sec. 10, 13-9

DEPTH	READING SCALE 4	READING SCALE 5
610		2
569		3
568		3
567		4
566		5
565		5
564		0
530		4
529		3
478		4
477		3
454		4
453		4
452		5
451		7
450½		7
450		8
449½		9
449		8
448½		7
448		5
447½		5
447		7
446½		5
446		4
445		4
444		6
443		3
442		3
441		3
397		2

DEPTH	READING SCALE 4	READING SCALE 5
396		3
395		4
394½		5
394		4
393		4
392		3
391		4
390		3
389		3
389-377		4
376		4
375		4
374		4
369		4
369		2
333		3
329		4
328		4
327		4

TOTAL DEPTH 621'

HOLE NO. 104 AREA Sec. 10, 13-9

DEPTH	READING SCALE 4	READING SCALE 5
582		2
580		4
579½		4
579		4
578½		3
578		* 3
575		4
574		4
573		4
572		4
571		4
570		4
569		4
563		3
557		4
556½		5
556		7
555½		10
555		12
554½		10
554		6
553½		5
553		4
552		3
551		4
550½		7
550		10
549½		7
549		9
548½		5
548		3
509½		4
509		5
508½		4
508		3

DEPTH	READING SCALE 4	READING SCALE 5
472½		4
472		4
471½		3
433		4
403		4
402½		6
402		4
401½		5
396		3
377		4
376½		6
376		8
375½		8
375		7
374½		8
374		6¶
373½		4
362		5
361½		4
361		5
360½		5
360		7
359½		6
359		9
358½		8
358		5
357½		4
356½		5
356		4
355½		5
355		6
354½		4
326		2

TOTAL DEPTH 593'

CASING 20'

HOLE NO. 111 AREA Sec. 10, 13-9

DEPTH	READING SCALE 4	READING SCALE 5
553		2
547		3
520		5
519½		4
519		5
518½		5
518		3
503		5
502½		5
502		4
501½		6
501		6
500½		9
500		10
499½		8
499		8
498½		7
498		6
497½		5
497		3
491		4
490½		6
490		5
489½		9
489		12
488½		20
488	12	30
487½	8	
487		8
486½		4
479		5
478½		9
478		8
477½		10
477		10
476½		13
476		10
475½		10
475		7
474½		9
474		6
473		6
472		4

DEPTH	READING SCALE 4	READING SCALE 5
457½		4
457		6
456½		7
456		6
455½		7
455		7
454½		7
454		7
453½		6
453		3
449		2
438		7
437½		10
437		8
436½		7
436		8
435½		5
435		8
434½		8
434		10
433½		8
433		3
409		5
408½		6
408		14
407½		12
407		20
406½		10
406		10
405½		7
405		5
404		5
403		4
380		5
379		8
378½		10
378		9
377		8
376½		5
376		5
375½		4

TOP TOP

3 & 2

This material
received w/FT Memo
of July 10, 1956

Drill logs & maps.

DMEA
Data Rec'd
MAY 14 1956
BUREAU OF MINES
Denver, Colorado

HOLE NO. 101 AREA Sec. 10 13-9

FROM	TO	DESCRIPTION
0	20	Blow sand
20	30	SS; lt br gy, fn - m, v arg
30	37½	SH; lt br gy
37½	57½	SS; lt br gy, fn; @ 50 → lt gy
57½	127½	SH; dk gy, v arena, v carb; @ 70 → dk br gy @ 112½ → lt br gy, v arena
127½	145	SS; dk gy, fn, v ~~xx~~ carb
145	170	SH; dk br gy, v arena
170	180	SS; dk br gy, fn - m, carb
180	202½	SH; dk br gy, v arena
202½	302½	SS; m gy, fn - m, all qtz; @ 205 → lt gy; @ 255 → m gy w/carb; @ 257½ → lt gy, all qtz @ 295 → dk br gy w/carb
302½	337½	SH; lt gr gy, arena; @ 312½ → v arena
337½	385	SS; lt gr gy, fn - m; lost circulation; @ 347½ driller believes SH start @ 380, begin core @ 385
385	397	SH; lt gr gy; @ 392 rd; @ 395½ → ex arena
397	427	SS; m gy, fn - m, ark; @ 407 → m - c; @ 415 → m gy, c, ark, s py; @ 420 → c - cg w/gr cl stks; @ 424 → m gr gy w/gr cl stks; @ 426 → w cem w/A calc
427	437	SH; lt gr gy, v arena; @ 427 A pet res w/py; @ 429, .5' br gy; @ 430 → mod arena; @ 434 → v arena; @ 435 stk pet res; @ 436 → ex arena
437	441	SS; lt gr gy, m, occ py, ark; @ 439½ → m & c
441	463½	SH; lt gr gy w/br gy stks; @ 441 stk pet res; @ 443 → mod arena; @ 444½ → v arena; @ 446 → no arena; @ 452½ → mod arena; @ 455 → br gy w/gr gy, stks; @ 461 → lt gr gy, v arena; @ 463 → ex arena
463½	538½	SS; lt gr gy, m, w/gr cl stks; @ 468 → fn-m; @ 473½ → m - c; @ 475 → fn; @ 476½ → fn - m, w cem; @ 483½ → m & c w/ py; @ 486½ → m - c & cg; @ 492½ → m & c; @ 495 3" w cem w/A calc, A pet res & py, coff 2" gr cl stk, ex arena; @ 495½ → m & c; @ 505 → m, c, & cg; @ 511 → 4" gr cl w/A py; @ 511½ → w cem w/A calc; @ 512 → fn - m w/ gr cl stks; @ 514½ → m - c A ark; @ 515 → fn - m; @ 516 → m - c, v arg; @ 530 → fn θ m; @ 534½ → w cem w/A calc
538½	565	SH; lt gr gy, v arena; @ 539 → sli arena w/A pet res & sli py; @ 541 → no pet res, v arena; @ 543 ? "(2)" fn SS; @ 547½ 2" SS, w cem w/A calc, stk pet res; @ 548 2' SS, lt gr gy fn - m, p cem; @ 549½ → SH - SS intbdd gr gy & rd br w/stks of ex arena; @ 555 → rd br w/ s lt gr gy
		Bottom at 565

HOLE NO. 102 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	5	Blow sand
5	45	SH; lt br; @ 27½ w/gyp; @ 37½ → dk br gy, w/gyp
45	52½	SS; lt gy fn - m; @ 47½ → lt br gy
52½	217½	SH; lt gy; @ 70 → dk gy; @ 105 → dk br gy, arena; @ 112½ → lt br gy; @ 142½ → v arena; @ 152½ → dk br gy
217½	312½	SS; lt gy, all qtz; @ 280 w/carb; @ 287½ all qtz; @ 290 → m gy w/carb
312½	335	SH; lt gr gy; @ 325 → arena; @ 332½ → v arena
335	390	SS; lt gr gy, fn - m, py ark; @ 350 lost circulation, driller states that SS was drilled to 385; @ 385 wet samples begin → SS, lt gr gy? fn - m?
390	397	SH; lt gr gy (wet sample & driller report
397	442	SS; m gy, fn - m, ark; Begin core at 410; @ 410 → lt gy, m - c; @ 416 → lt gr gy, m - c w/gr cl stks; @ 417½ → c - cg; @ 424 → fn - m; @ 430 → m gr gy, m - c w/stks cg; @ 435 → c - cg; @ 440 → m & c;
442	456	SH; lt gr gy, mod arena; @ 442½ pet res; @ 443½ 6" br gy; @ 444 stk pet res → no arena; @ 447½ → mod arena; @ 451½ 6" br gy; @ 453 → v arena; @ 456 → ex arena
456	561	SS; lt gr gy, fn - m, ~~w~~ w so, w cem occ py, occ carb; @ 463½ 5" lt gr w/gr cl stks; @ 464½ → lt gy w/lt gr gy; @ 472½ → m gy, m - c w/gr cl stks; @ 480 lt gr gy, m - c; @ 483½ → m w/gr cl gl & stks c; @ 486 → m - c; @ 494 → m, c, - cg; @ 514 → w cem w/A calc; @ 515 → m - c; @ 517½ 6" w cem w/A calc; @ 521 → m, c, & cg w/gr cl stks; @ 526 → fn - m; @ 533 → m; @ 541 → m, c & cg; @ 544½ → fn - m; @ 546 → m - c; @ 549 → fn - m; @ 553 → m; @ 557 → m - c; @ 558 → w cem w/A calc
561	573	SH; lt gr gy, v arena (ex); @ 567 → rd br; @ 568½ → gr gy, ex arena
573	621	SS; lt gr gy, fn - m, v arg; @ 574 → mod arg calc, m - c; @ 575 → m, c, cg, A gr cl gls; @ 575-595 , 2' core rec; Has bds of m, w so & bds of c, v calc, A gr cl; @ 594½ small ls nod, cl gls, w/A pet res; @ 595 → lt gr gy, m, mod arg; @ 598 → m - c, sli arg; @ 601 → w cem w/A ~~ex~~ calc; @ 603 2" gr cl; @ 603 ~~xxxxx~~ → v arg; @ 605 → mod arg; @ 609½ 4" w cem w/A calc; @ 610 → fn - m, mod arg; @ 612 → m & m - c, mod arg; @ 614 2" cgw/gr cl & c SS matrix; @ 614½ → fn; @ 617 6" w cem; @ 618½ → w cem w/A calc; @ 620 → SS -SH br gy, fn Bottom at 621

HOLE NO. 103 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	21	Blow sand
21	53	SS; dk br gy, gyp, fn - m; @ 39 → m gy; @ 48 → lt br, all qtz
53	213	SH; lt gy, v arena; @ 68 → m gy; @ 135 → ex arena; @ 138 → lt gy; @ 153 → m gy
213	313	SS; lt gy, fn - m, all qtz; @ 297 → m gy w/ s carb
313	336	SH; lt gr gy, v arena; @ 321 → mod arena
336	362	SS; lt gr gy, fn - m
362	394	SH; lt gr gy, ex arena; @ 381 → mod arena
394	435	SS; lt gr gy, fn - m, ark, s py; @ 405 → m & c; @ 408 → fn - m; @ 414 → m - c; @ 426 → fn - m; @ 435 go to wet samples
435	440	SH; lt gr gy (water samples)
440	495	SS; lt gy gy, ark; begin core @ 450 lt gr gy, fn - m, sli arg; @ 453 → m - c; @ 453½ 6" w cem w/A calc; @ 455 → fn - m; @ 460 m - c & cg, v ark; @ 463 → intbdd w/calc, gr cl gl, w/pet res; @ 471 m gy, m, v arg, com py; @ 474 → m - c & cg, v ark; @ 474½ 4" int bdd calc gr cl & c - cg SS; @ 475 → m - c, mod arg; @ 479½ → v arg; @ 480 → ex arg; @ 481 → fn - m, sli arg; @ 485½ com fn py; @ 487½ 1" gr cl ~~xxxxxxxxxx~~; @ 489 → m; @ 489½ → m - c & cg, v ark; @ 493 → fn - m; @ 494 → w cem w/A calc
495	498	SH; lt gr gy, v arena w/cg; @ 495½ → rd br; @ 497½ → lt gr gy, ex arena
498	580	SS; m gy, gn - m, mod ark, com py; @ 505½ → m - c & cg, v ark; @ 507 → m - c; @ 508 → fn - m w/stks gr cl, ~~xx~~ r py & c - cg SS; @ 514½ → w cem w/A calc; @ 518 → m gy, fn - m, com py, mod arg; @ 529, 1" gr cl → m; @ ~~5395~~ 535 → m - c; @ 538 → m - c & cg; @ 539 → m ; @ 543 → m - c; @ 546 w/gr cl gls; @ 547 3" w cem w/A calc → 1' SH, lt gr gy, mod arena; @ 548 → m gy, fn - m, v arg w/ stks c & stks gr cl; @ 571 6" w cem w/A calc; @ 573 → int bdd SS, m - c, A calc w/SH, lt gr gy; @ 575½ 1' SH, lt gr gy; @ 576½ → ex arena; @ 578 m gy, fn - m, v arg; Bottom at 580

@ 367 1' .03%; @ 388 1' ~~and~~ .01%; @ 423 1' .01%; @ 318 1' .01%; @ 309 1' .03%

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HOLE NO. 111 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	20	Blow sand
20	37½	SS; lt br gy, fn - m (NM) v arg
37½	191	SH; dk br gy, v arena w/carb; @ 85 → m gy, w/mica; @ 95 → lt gy, v arena; @ 125 → dk br gy, v arena
191	203	SS; med gy, fn; @ 203 → dk br gy w/carb
203	257	SH; lt br gy, arena; @ 242 → dk br gy
257	272	SS; m, br gy, fn-m, all qtz; @ 260 → lt br gy
272	302	SH: lt br gy, v arena; @ 299 → ex arena
302	338	SS; lt gy, fn - m, all qtz
338	386	SH; lt gr gy, arena; @ 383 → v arena
386	437½	SS; lt gr gy, fn - m, ark; @ 389 → m θ c; @ 404 → m, c, & cg w/ stks gr cl; @ 413 → m - c; Begin core at 418 lt gy , m, v ark, s py; @ 421 → fn - m; @ 423 6" ex arg; @ 423½ → fn, no arg, fn py; @ 425 → fn - m, lt gr gy, mod arg; @ 526 → lt gy, fn - m, sli arg, w/calc; @ 428½ ½" gr cl; @ 430½ → cg w/m - c w cem w/A calccg feld, w/gr cl; @ 443 1' gr cl, ls nods, w/A Pet Res & Coff?, A py stks @ 435 → dk gr gy, fn - m, w/cem w/A calc, stks pet res & stks cg, cg is qtzite pebs & feld; @ 437½ 2" A pet res, py
437½	452	SH; lt gr gy; @ 438 → mod arena; @ 439 → intbdd ls, gr sh, A pet res, py; @ 447 end core (go to wet samples) @ 448 → ex arena
452	485	SS; m gy, m; @ 456 → v arg; @ 471 → fn - m @ 483 → ex arg; @ 484 6" rd br SH
485	501½	SH; lt gr gy, mod arena; @ 489 → sli arena; @ 494 → v arena
501½	544	SS; m gy, fn - m, mod arg; @ 504 → m, sli arg; @ 528 → m - c; @ 531 → fn - m; @ 537 → m - c; @ 541 → fn - m
544	555	SH; lt gr gy; @ 549 → v arena Bottom at 555

HOLE NO. 112 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	15	Blow sand
15	30	SS; lt br gy, fn - m, arg, gyp
30	159	SH; dk br gy, v arena; @ 48 → dk by; @ 60 → lt br gy, ex arena; @ 72 → lt gy; @ 93 → dk gy; @ 156 → lt gy
159	168	SS; m gy, fn gyp; @ 165 → v arg
168	243	SH; m gy, mod arena; @ 201 → v arena; @ 234 → ex arena
243	309	SS; lt gy, fn, all qtz; @ 261 → m gy, mod arg; @ 264 → lt gy, all qtz; @ 303 → m gy w/carb; @ 306 → dk gy w/carb
309	336	SH; lt gr gy, v arena; @ 330 → br gy
336	417	SS; lt gr gy, f - m; @ 378 m , c & cg; @ 384 → fn - m; @ 405 → m - c
417	427	SH; lt gr gy; @ 426 → v arena; lost samples
427	470	@ 427 driller reports SS to 470, Begin core at 470
470?	565½	SS; lt gr gy, m, v arg, w cem; @ 472 1' gr cl, v arena w/pet res; @ 473 → sli arg, lt gy; @ 484 → m - c, lt gr gy; @ 487½ 6" SH lt gr gy; @ 488 → fn - m; @ 489 → m - c & cg; @ 491 → fn - m, mod arg; @ 496 → v arg; @ 496½ → sli arg; @ 499½ → m gy, c - cg, ark; @ 502½ → c; @ 503 → m; @ 507½ → m gy, c; @ 520 → m , p cem; @ 524½ → m - c; @ 529 → lt gy, m O c; @ 532½ → m; @ 542 → m - c; @ 543 → lt gr gy, m - c & cg, v arg, r py; @ 545½ → int bdd SS, c - cg w/SH, lt gr gy, r py; @ 546 → m gy, m & c & cg; @ 549 → fn - m & c; @ 549½ → c, v ark; @ 550 → m - c, mod arg; @ 553 → fn - m, mod arg; (559-564) recov. 3" m gy, m @ 564 → w cem w/A calc
565½	569	SH; lt gr gy; @ 567 → rd br Bottom at 569
		@ 350, 3½' .01%; @ 383 1' .01%; @ 445 1' .01%

HOLE NO. 113 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	27	Blow sand
27	48	SS; lt gr gy, mod arg, gyp; @ 39 → m gy
48	177	SH; m gy, v arena; @ 51 → sli arena; @ 54 → 10YR8/2; @ 63 → lt gy; @ 66 →10YR8/2, ex arena w/stks lt gy, sli arena; @ 90 → lt gr gy, ex arena; @ 93 → dk gy, mod arena @ 147 → m gy
177	189	SS; m gy, sli arg; @ 180 → all qtz
189	238	SH; m gy, mod arena
238	293	SS; lt gy, all qtz
293	308	SH; lt gr gy, ex arena; @ 296 → mod arena; @ 299 → v arena
308	329	SS; lt gr gy, m - c, mod arg; @ 320 → fn - m
329	347	SH; lt gr gy, mod arena; @ 332 → ex arena; @ 341 → lt gr gy w/m gy, mod arena; @ 344 → ex arana
347	380½	SS; m gy, fn - m, ex arg w/SH, lt gr gy; @ 350 → m, sli arg; @ 353 → m - c; Begin core at 358; 358-363, 0' recov; @ 363 → int bdd SH, lt gr gy w/stks pet res & SS, fn - m, mod - v arg; @ 368 → SS, lt gr gy, v fn - f v arg; @ 369½ → mod arg; @ 376 → v arg; @ 376½ 4" gr cl; @ 379 → c & cg intbdd w/SH lt gr gy, sli py; @ 380 → fn - v fn, lt gr gy, v arg
380½	384	SH; lt gr gy, ex arena; @ 382 → v arena w/s py; @ 383½ → ex arena w/stks py & pet res
384	397	SS; lt gr gy, m - c w/~~xx~~ s py; @ 385 → m gy, m - c & cg, p cem, mod arg; @ 390-395 6" recov. SS, fn, v - ex arg, fn py; @ 395 → lt gr gy, m, c, & cg w/stks gr cl, gr cl w/pet res
397	419	SH; lt gr gy, sli arena, w/ls nods & Pet res; @ 398½ 3" ls; @ 403 → intbdd SH & ls, SH hi frctrd, A pet res; @ 416 → stks of bn gy, → v arena
419	430½	SS; lt gr gy, fn, v arg; @ 419½ → m gy, no arg, p cem; @ 423½ → m; @ 424½ → m, c, & cg, v arg; @ 427½ → fn, m, c & cg, w cem w/ A calc, w/stks gr cl & fn py; @ 429 → fn- m w cem w/A calc, stks py, s pet res
430½		SH; lt gr gy w/ls nods, pet res & py, sli arena; @ 433½ → sh, lt gr gy - no else; @ 439 → w/ls nods & sli pet res; @ 443½ → sli arena; @ 444 → lt gr gy w/dk br gy; @ 448½ → lt gr gy; @ 449 → v arena; @ 450½ → no arena; @ 455 w/br gy, sli arena; @ 458 → mod arena; @ 462½ 3" dk ~~xx~~ gr gy w/pet res; @ 463 gr gy v arena; @ 465½ w/br gy & ls nods; @ 466½ → ex arena

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SEC 10, T13N, R9W

N

COLANDER CORP

DATED [illegible] 4017
SHOWING HOLE LOCATIONS
AND COORDINATES
NUMBERS OF 12% STAGE

TO ACCOMPANY OPERATOR'S
MONTHLY REPORT

HOLE NO. 101 AREA SEC. 10, T13N, R9W

FROM	TO	DESCRIPTION
0	20	Blow sand
20	30	SS; lt br, gy, f - m, v arg
30	37½	SH; lt br, gy
37½	57½	SS; lt br, gy, f; @ 50 → lt gy
57½	127½	SH; dk gy, v arena, v carb; @ 70 → dk br, gy; @ 112½ → lt br, gy, v arena
127½	145	SS; dk gy, f, v carb
145	170	SH; dk br, gy, v arena
170	180	SS; dk br gy, f - m, carb
180	202½	SH; dk br gy, v arena
202½	302½	SS; m gy, f - m, all qtz; @ 205 → lt gy; @ 255 → m gy w/carb; @ 257½ → lt gy, all qtz; @ 295 → dk br gy, w/carb
302½	337½	SH; lt gr gy, arena; @ 312½ → v arena
337½	385	SS; lt gr gy, f-m, Lost circulation @ 347½. driller believes SH starts @ 380
		Begin core at 385
385	397	SH; lt gr gy; @ 392 rd; @ 395½ → ex arena
397	427	SS; med, gy, f-m, ark; @ 407 → m - c; @ 415 → m gy, c, ark, some py; @ 420 → c - cg, w/gr cl stks; @ 424 → m gr gy w/gr cl stks; @ 426 → w cem w/A calc
427	437	SH; lt gr gy, v arena; @ 427 A pet res w/py; @ 429 .5' br gy; @ 430 → mod arena; @ 434 → v arena; @ 435 stk Pet res; @ 436 → ex arena
437	441	SS; lt gr gy, m, occ py, ark; @ 439½ → m & c
441	463½	SH; lt gr gy w/br gy stks; @ 441 stk pet res; @ 443 → mod arena; @ 444½ → v arena; @ 446 → no arena; @ 452½ → mod arena; @ 455 → br gy w/bl gy stks; @ 461 → lt gr gy, v arena; @ 463 → ex arena
463½	538½	SS; lt gr gy, m, w/gr cl stks; @ 468 → f-m; @ 473½ → m - c; @ 475 → f; @ 476½ → f-m, w cem; @ 483½ → m & c w/py; @ 486½ → m - c & cg; @ 492½ -- m & c; @ 495, 3" w cem w/A calc, A pet res & py Coff 2" gr cl stk ex arena; @ 495½ → m & c; @ 505 → m, c, & cg; @ 511 → 4" gr cl w/A py; @ 511½ → w cem w/A calc @ 512 → f-m; @ 516 → m -c, v arg; @ 530 → f - m; @ 534½ → w cem w/A calc
538½	SH	SH; lt gr gy, v arena; @ 539 → sli arena w/A pet res & sli py; @ 541 → no pet res, v arena; @ 543 ? "(2)" f. SS; @ 547½, 2" SS, w cem w/A cals, stk pet res; @ 548, 2' SS; lt gr gy, f-m po cem; @ 549½ → SH-SS intbdd gr gy & rd br w/ stks of ex arena; @ 555 → rd br w/so lt gr gy

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HOLE NO. 102 82% recov. AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	5	Blow sand
5	45	SH; lt br; @ 27½ w/ gyp; @ 37½ → dk br, gy w/gyp
45	52½	SS; lt gr, f - m; @ 47½ → lt br gy
52½	217½	SH; lt gy; @ 70 → dk gy; @ 105 → dk br gy, arena; @ 152½ → dk br gy
217½	312½	SS; lt gy, all qtz; @ 280 w/ carb; @ 287½ all qtz; @ 290 → m gy w/ carb
312½	335	SH; lt gr gy; @ 325 → arena; @ 332½ → v arena
335	390	SS; lt gr gy, f - m, py ark; @ 350 lost circulation, driller states that SS was drilled to 385: @ 385 wet samples begin → SS, lt gr gy ? f - m ?
390	397	SH; lt gr gy (wet sample & driller report)
397	442	SS; med gy, f - m, ark; Begin core at 410; @ 410 → lt gy, m - c; @ 416 → lt gr gy, m-c w/ gr cl stks; @ 417½ → c - cg; @ 424 → f - m; @ 430 → m gr gy, m - c, w/stks cg; @ 435 → c - cg; @ 440 → m & c
442	456	SH; lt gr gy, mod arena; @ 442½ Pet res; @ 443½ 6" br gy; @ 444 stk pet res → no arena; @ 447½ → mod arena; @ 451½, 6" br gy; @ 453 → v arena; @ 456 → ex arena
456	561	SS; lt gr gy, f - m, w sorted, w cem, occ py, occ carb; @ 463½ 5" of lt gy w/gr cl stks, @ 464½ → lt gy w/ lt gr gy; @ 472½ → m gy, m -c w/ gr cl stks; @ 480 lt gr gy, m - c; @ 483½ → m w/gr cl gl & stks c; @ 486 → m - c; @ 494 → m c - cg w/ stks gr cl & calc; @ 498 → m - c; @ 508 → c - cg; @ 514 → w cem w/A calc; @ 515 → m - c; @ 517½ 6" w cem w/A calc; @ 521 → m c & cg w/gr cl stks; @ 526 → f - m; @ 533 → m; @ 541 → m, c & cg; @ 544½ → f - m; @ 546 → m - c; @ 549 → f - m; @ 553 → m; @ 557 → m p c; @ 558 → w cem w/A calc
516	573	SH; lt gr gy, v arena (ex); @ 567 → rd br; @ 568½ → gr gy, ex arena
573		SS; lt gr gy, fn m, v arg; @ 574 → mod arg, calc m - c; @ 575 → m, c, cg, A gr cl gls; @ 575-595, 2' core rec; has bds of m, w so & bds of c, v calc, A gr cl; @ 594½ small ls nod, cl gls, w/ A pet res; @ 595 → lt gr gy, m, mod arg; @ 598 → m - c, sli arg; @ 601 → w cem w/A calc; @ 603, 2" gr cl; @ 603 → v arg; @ 605 → mod arg; @ 609½ 4" w cem w/A calc; @ 610 → f - m, mod arg; @ 612 → m & m - c, mod arg; @ 614 2" cg w/gr cl & c SS matrix; @ 614½ → f ; @ 617 6" w cem; @ 618½ → w cem w/A calc; @ 620 → SS - SH, br gy, f Bottom 621

HOLE NO. 111 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	20	Blow sand
20	37½	SS; lt br gy, f - m (dm) v arg
37½	191	SH; dk br gy, v arena w/carb; @ 85 → m gy, w/mica; @ 95 → ltgy, v arena; @ 125 → dk br gy, v arena;
191	203	SS; med gy, f; @ 203 → dk br gy w/carb
203	257	SH; lt br gy, arena; @ 242 → dk br gy
257	272	SS; m br gy, f - m, all qtz; @ 260 → lt br gy
272	302	SH; lt br gy, v arena; @ 299 → ex arena
302	338	SS; lt gy, f - m, all qtz
338	386	SH; lt gr gy, arena,; @ 383 → v arena
386		SS; lt gr gy, f - m, ark; @ 489 → m - c; @ 404 → m, c, & cg w/stks of gr cl; @ 413 → m - c

Drilling not completed

HOLE NO. 112 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	15	Blow sand
15	30	SS; lt br gy, f - m, arg gyp
30	159	SH; dk br gy, v arena; @ 48 → dk gy; @ 60 → lt br gy, ex arena; @ 72 → lt gy; @ 93 → dk gy; @ 156 → lt gy
159	168	SS; m gy f gyp; @ 165 → v arg
168	243	SH; m gy, mod arena; @ 201 → v arena; @ 234 → ex arena
243	309	SS; lt gy f, all qtz; @ 261 → m gy mod arg; @ 264 → lt gy, all qtz; @ 303 -- m gy w/carb; @ 306 → dk gy w/carb
309	336	SH; lt gr gy, v arena; @ 330 → br gy
336	417	SS; lt gr gy, f - m; @ 378 m c & cg; @ 384 → f - m; @ 405 → m - c
417	427	SH; lt gr gy; @ 426 → v arena; lost samples
427	470	@ 427 driller reports SS to 470
		Begin core at 470
470	SS: lt gr gy, m , v arg, w cem; @ 472 1' gr cl, v arena w/pet res; @ 473 → sli arg, lt gy; @ 484 → m - c, lt gr gy; @ 487½ 6" SH, lt gr gy; @ 488 → f - m; @ 489 → m - c & cg; @ 491 → f - m, mod arg; @ 496 → v arg; @ 496½ → sli arg; @ 499½ → m gr, c - cg, arkp @ 502½ → c; @ 503 → m; @ 507½ → m gr, c; @ 520 → m, p cem; @ 524½ → m - c	

Drilling not completed

HOLE NO. 101 AREA Sec. 10 13-9

FROM	TO	DESCRIPTION
0	20	Blow sand
20	30	SS; lt br gy, fn - m, v arg
30	37½	SH; lt br gy
37½	57½	SS; lt br gy, fn; @ 50 → lt gy
57½	127½	SH; dk gy, v arena, v carb; @ 70 → dk br gy @ 112½ → lt br gy, v arena
127½	145	SS; dk gy, fn, v ex carb
145	170	SH; dk br gy, v arena
170	180	SS; dk br gy, fn - m, carb
180	202½	SH; dk br gy, v arena
202½	302½	SS; m gy, fn - m, all qtz; @ 205 → lt gy; @ 255 → m gy w/carb; @ 257½ → lt gy, all qtz @ 295 → dk br gy w/carb
302½	337½	SH; lt gr gy, arena; @ 312½ → v arena
337½	385	SS; lt gr gy, fn - m; lost circulation; @ 347½ driller believes SH start @ 380, begin core @ 385
385	397	SH; lt gr gy; @ 392 rd; @ 395½ → ex arena
397	427	SS; m gy, fn - m, ark; @ 407 → m - c; @ 415 → m gy, c, ark, s py; @ 420 → c - cg w/gr cl stks; @ 424 → m gr gy w/gr cl stks; @ 426 → w cem w/A calc
427	437	SH; lt gr gy, v arena; @ 427 A pet res w/py; @ 429, .5' br gy; @ 430 → mod arena; @ 434 → v arena; @ 435 stk pet res; @ 436 → ex arena
437	441	SS; lt gr gy, m, occ py, ark; @ 439½ → m & c
441	463½	SH; lt gr gy w/br gy stks; @ 441 stk pet res; @ 443 → mod arena; @ 444½ → v arena; @ 446 → no arena; @ 452½ → mod arena; @ 455 → br gy w/gr gy, stks; @ 461 → lt gr gy, v arena; @ 463 → ex arena
463½	538½	SS; lt gr gy, m, w/gr cl stks; @ 468 → fn-m; @ 473½ → m - c; @ 475 → fn; @ 476½ → fn - m, w cem; @ 483½ → m & c w/ py; @ 486½ → m - c & cg; @ 492½ → m & c; @ 495 3" w cem w/A calc, A pet res & py, coff 2" gr cl stk, ex arena; @ 495½ → m & c; @ 505 → m, c, & cg; @ 511 → 4" gr cl w/A py; @ 511½ → w cem w/A calc; @ 512 → fn - m w/ gr cl stks; @ 514½ → m - c A ark; @ 515 → fn - m; @ 516 → m - c, v arg; @ 530 → fn θ m; @ 534½ → w cem w/A calc
538½	565	SH; lt gr gy, v arena; @ 539 → sli arena w/A pet res & sli py; @ 541 → no pet res, v arena; @ 543 ? "(2)" fn SS; @ 547½ 2" SS, w cem w/A calc, stk pet res; @ 548 2' SS, lt gr gy fn - m, p cem; @ 549½ → SH - SS intbdd gr gy & rd br w/stks of ex arena; @ 555 → rd br w/ s lt gr gy Bottom at 565

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HOLE NO. 102 AREA Sec. 10, 12-2

FROM	TO	DESCRIPTION
0	5	Blow sand
5	45	SH; lt br; @ 27½ w/gyp; @ 37½ → dk br gy, w/gyp
45	52½	SS; lt gy fn - m; @ 47½ → lt br gy
52½	217½	SH; lt gy; @ 70 → dk gy; @ 105 → dk br gy, arena; @ 112½ → lt br gy; @ 142½ → v arena; @ 152½ → dk br gy
217½	312½	SS; lt gy, all qtz; @ 280 w/carb; @ 287½ all qtz; @ 290 → m gy w/carb
312½	335	SH; lt gr gy; @ 325 → arena; @ 332½ → v arena
335	390	SS; lt gr gy, fn - m, py ark; @ 350 lost circulation, driller states that SS was drilled to 385; @ 385 wet samples begin → SS, lt gr gy? fn - m?
390	397	SH; lt gr gy (wet sample & driller report
397	442	SS; m gy, fn - m, ark; Begin core at 410; @ 410 → lt gy, m - c; @ 416 → lt gr gy, m - c w/gr cl stks; @ 417½ → c - cg; @ 424 → fn - m; @ 430 → m gr gy, m - c w/stks cg; @ 435 → c - cg; @ 440 → m & c;
442	456	SH; lt gr gy, mod arena; @ 442½ pet res; @ 443½ 6" br gy; @ 444 stk pet res → no arena; @ 447½ → mod arena; @ 451½ 6" br gy; @ 453 → v arena; @ 456 → ex arena
456	561	SS; lt gr gy, fn - m, ~~w~~ w sc, w cem occ py, occ carb; @ 463½ 5" lt gr w/gr cl stks; @ 464½ → lt gy w/lt gr gy; @ 472½ → m gy, m - c w/gr cl stks; @ 480 lt gr gy, m - c; @ 483½ → m w/gr cl gl & stks c; @ 486 → m - c; @ 494 → m, c,- cg; @ 514 → w cem w/A calc; @ 515 → m - c; @ 517½ 6" w cem w/A calc; @ 521 → m, c, & cg w/gr cl stks; @ 526 → fn - m; @ 533 → m; @ 541 → m, c & cg; @ 544½ → fn - m; @ 546 → m - c; @ 549 → fn - m; @ 553 → m; @ 557 → m - c; @ 558 → w cem w/A calc
561	573	SH; lt gr gy, v arena (ex); @ 567 → rd br; @ 568½ → gr gy, ex arena
573	621	SS; lt gr gy, fn - m, v arg; @ 574 → mod arg calc, m - c; @ 575 → m, c, cg, A gr cl gls; @ 575-595 , 2' core rec; Has bds of m, w sc & bds of c, v calc, A gr cl; @ 594½ small ls nod, cl gls, w/A pet res; @ 595 → lt gr gy, m, mod arg; @ 598 → m - c, sli arg; @ 601 → w cem w/A ~~ex~~ calc; @ 603 2" gr cl; @ 603 ~~xxxxx~~ → v arg; @ 605 → mod arg; @ 609½ 4" w cem w/A calc; @ 610 → fn - m, mod arg; @ 612 → m & m - c, mod arg; @ 614 2" cgw/gr cl & c SS matrix; @ 614½ → fn; @ 617 6" w cem; @ 618½ → w cem w/A calc; @ 620 → SS -SH br gy, fn Bottom at 621

HOLE NO. 103 AREA Sec. 10. 13-9

FROM	TO	DESCRIPTION
0	21	Blow sand
21	53	SS; dk br gy, gyp, fn - m; @ 39 → m gy; @ 48 → lt br, all qtz
53	213	SH; lt gy, v arena; @ 68 → m gy; @ 135 → ex arena; @ 138 → lt gy; @ 153 → m gy
213	313	SS; lt gy, fn - m, all qtz; @ 297 → m gy w/ s carb
313	336	SH; lt gr gy, v arena; @ 321 → mod arena
336	362	SS; lt gr gy, fn - m
362	394	SH; lt gr gy, ex arena; @ 381 → mod arena
394	435	SS; lt gr gy, fn - m, ark, s py; @ 405 → m & c; @ 408 → fn - m; @ 414 → m - c; @ 426 → fn - m; @ 435 go to wet samples
435	440	SH; lt gr gy (water samples)
440	495	SS; lt gy gy, ark; begin core @ 450 lt gr gy, fn - m, sli arg; @ 453 → m - c; @ 453½ 6" w cem w/A calc; @ 455 → fn - m; @ 460 m - c & cg, v ark; @ 463 → intbdd w/calc, gr cl gl, w/pet res; @ 471 m gy, m, v arg, com py; @ 474 → m - c & cg, v ark; @ 474½ 4" int bdd calc gr cl & c - cg SS; @ 475 → m - c, mod arg; @ 479½ → v arg; @ 480 → ex arg; @ 481 → fn - m, sli arg; @ 485½ com fn py; @ 487½ 1" gr cl ~~[illegible]~~; @ 489 → m; @ 489½ → m - c & cg, v ark; @ 493 → fn - m; @ 494 → w cem w/A calc
495	498	SH; lt gr gy, v arena w/cg; @ 495½ → rd br; @ 497½ → lt gr gy, ex arena
498	580	SS; m gy, gn - m, mod ark, com py; @ 505½ → m - c & cg, v ark; @ 507 → m - c; @ 508 → fn - m w/stks gr cl, ~~xx~~ r py & c - cg SS; @ 514½ → w cem w/A calc; @ 518 → m gy, fn - m, com py, mod arg; @ 529, 1" gr cl → m; @ ~~[illegible]~~ 535 → m - c; @ 538 → m - c & cg; @ 539 → m ; @ 543 → m - c; @ 546 w/gr cl gls; @ 547 3" w cem w/A calc → 1' SH, lt gr gy, mod arena; @ 548 → m gy, fn - m, v arg w/ stks c & stks gr cl; @ 571 6" w cem w/A calc; @ 573 → int bdd SS, m - c, A calc w/SH, lt gr gy; @ 575½ 1' SH, lt gr gy; @ 576½ → ex arena; @ 578 m gy, fn - m, v arg; Bottom at 580
		@ 367 1' .03%; @ 388 1' ~~[illegible]~~ .01%; @ 423 1' .01%; @ 318 1' .01%; @ 309 1' .03%

HOLE NO. 104 AREA Sec. 8 10, 13-9

FROM	TO	DESCRIPTION
0	17½	Blow sand
17½	42½	SS; lt ol gy, 5Y, 5/2, fn - m, v arg
42½	157½	SH; lt ol gy, v arena; @ 47½ → dk gy; @ 57½ → lt gy; @ 87½ → dk gy; @ 92½ → ex arena; @ 95 → mod arena; @ 100 → ex arena; @ 120 → mod arena; @ 142½ → med lt gy, mod arena; @ 150 → sli arena
157½	215	SS; lt gy, fn, v arg, gyp; @ 212½ → ex arg
215	227½	SH; med lt gy, mod arena; @ 222½ -- ex arena @ 225 → mod arena
227½	320	SS; lt gy, all qtz; @ 237½ → mod arena; @ 242½ → all qtz; @ 305 → med gy w/sli carb; @ 310 → all qtz
320	340	SH; lt gr gy; @ 325 → mod arena; @ 330 → lt ol gr 5Y6/1, v arena
340	377½	SS; lt gr gy, fn - m, mod arg; @ 350 → sli arg; @ 362½ → m-c, py, ark, com bk cht
377½	404	SH; lt gr gy w/br gy; @ 387 → lt gr gy; @ 400 → v arena
404	582½	SS; lt gr gy, m, v ark, com py; @ 407½ → m - c; @ 415 → m - c & cg; @ 415 begin core; @ ~~417.2~~ 417 2" intbdd gr cl, cal & cg; @ 417½ → c - cg; @ 418 → m-c & cg; @ 423½ → m gy, g fn - m; @ 424½ → m, v arg; @ 426 1' SH, gr gy, py, Pet Res, v - ex arena; @ 427 → SS, lt gy, fn - m, com py; @ 431½ → intbdd SS, fn - m - c & cg w/gr cl & A py, v arg; @ 434 → m gy, m - c; @ 435 → m - c & cg, v ark; @ 439 → fn - m; @ 440½ → cg, v ark; @ 445 → m - c; @ 447 → m; @ 450 → m - c & cg; @ 465 → fn - m, lt gr gy; @ 467 → m - c & cg, v ark; @ 468 → m - c; @ 472 → m, c & cg, w/gr cl stks; @ 475 → m, mod arg; @ 478½ 3" gr cl; @ 479 → w cem w/A calc; @ 480½ → v arg, com py; @ 482 → m - c & cg, com py, stks gr cl; @ 483 → m; @ 485 → intbdd m - c & cg w/gr cl stks , gr cl, A pet res; @ 488 → m, sli arg, com bk ?; @ 495 → m - c & cg w/stks gr cl, v ark, v py; @ 498 → m - c, p cem; @ 505 → lt gy, fn - m w/ stks c & cg & gr cl, v ark end core; @ 513 SS lt gr gy - m gy, fn - m
582½		SH; yd br w/lt gr gy Bottom at 593

HOLE NO. 105 AREA Sec. 10. 13-9

FROM	TO	DESCRIPTION
0	12	Blow sand
12	51	SS; lt ol gy, fn - m, mod arg, gyp w/stks ex arg
51	64	SH; m gy, v arena
64	102	SS; lt gy, fn - m, all qtz; @ 73 → ex arg; @ 93 → m gy; @ 99 → dk gy
102	240	SH; dk gy, ex arena; @ 105 → v arena; @ 108 → mod arena; @ 163 → lt gy, v arena; @ 184 → m gy; @ 207 → ex arena; @ 228 → mod arena; @ 234 → ex arena
240	327	SS; lt gy, fn - m, all qtz; @ 309 w/carb, dk gy; @ 315 → m gy, all qtz
327	351	SH; lt gr gy, ex arena; @ 342 → lt ol gy
351	381	SS; m gy, fn - m, ark; @ 369 → ex arg; @ 372 sli arg; @ 378 → ex arg
381	400	SH; lt ol gy, sli arena
400	506	SS; (no samples - driller reports) begin core @ 410; SS, v fn, lt gr gy, ex arg; @ 411 → m gy, m, ark, sli arg; @ 420 → gr gy, m - c, v arg; A py, coff? : @ 421 → fn - m, p com; @ 422 → m gy, m fn cem, fn diss py,; @ 426½ 1' w/stks gr cl; @ 427½ → m - c, ark, fn diss py w/stks gr cl, feld alt to kaol; @ 434 → fn - m, no cl, A calc; @ 440 → m, c & cg, v ark w/gr cl gls, feld hi alt; @ 441 → m , c & cg, A kaol, v ark; @ 442 4" fn; @ 445 → m - c, w/stks cg; @ 460 → m - c, p cem; @ 463½ 6" m, c, & cg, v arg; @ 464 → m, c, & cg, v ark, sli arg; @ 468½ → p cem; @ 469½ → fn - m, fn diss py w/stks c & cg; @ 471 → fn, mod arg; @ 473 → m - c, v ark w/stks w cem w/A calc; @ 482 → m, lt gy, w cem w/A calc; @ 485 3" gr cl → m gy, fn - m, sli arg; @ 487½ → c & cg, w/gr cl, v ark; @ 492½ → fn, mod arg, fn & diss py,; @ 494 → m, lt gy, A clac; @ 496 1' w/stks gr cl; @ 498 → fn - m, p cem; @ 500½ 6" w cem w/A calc; @ 501 → m gy, c -vc, v ark, A fn py, s pet res, mod arg; @ 505½ → m - c, w cem w/A calc
506	509	SH; m gy, A calc, A pet res, v arena; @ 507 1' rd br, v arena
509	583	SS; lt gy, v fn w cem w/A calc, mod arg End core @ 510 (lost samples) Driller Reports SS →
583		SH (driller reports) Bottom at 597

HOLE NO. 106 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	12	Blow sand
12	21	SS; lt br, m
21	186	SH; lt or br, med arena; @ 24 → lt br, sli arena; @ 30 → lt br gy, v arena; @ 36 → mod arena; @ 48 → dk br gy, v arena; @ 51 → dk gy, sli arena; @ 111 → m gy, mod arena; @ 126 → v arena
186	273	SS; m gy, s carb; @ 189 → lt gy, all qtz; @ 195 → m gy; @ 198 → lt gy; @ 261 → mod arg, m gy
273	309	SH; lt gr gy, v arena; @ 288 → mod arena; @ 300 sli arena, w/br gy
309	321	SS; lt gr gy, fn - m, v ark, v - ex arg
321	354	SH; lt gr gy; @ 330 → mod arena w/br gy
354	406	SS; lt gr gy, m - c, v ark, sli py Begin core @ 355, SS, m - c & v c, lt gy, w cem w/kaol, v ark; @ 357 → gr gy, c, ex arg; @ 358 → m gy, m - c, w cem w/A calc,; @ 366 → m p cem, w stks gr cl; @ 372 fn cem w/stks gr cl; @ 375 → m - c, no cl, v ark, A kaol; @ 384½ → c & v c, f cem, mod arg, A py, v ark; @ 389 → m gy, fn - m, no cl, fn, diss py; @ 396 → c - vc w/so cg, v ark, mod arg; @ 400 → fn - m, stks gr cl, fn diss py; @ 402 → A calc, stks gr cl
406	440	SH; lt gr gy, v arena w/ls intbdd,; @ 407 → no arena; @ 424 → lt gr gy w/br gy, w/ls nods; @ 426½ → lt gr gy, mod arena; @ 433 → rd br w/stks g lt gr gy End Core 435 SH to 440
440	539½	SS; lt gr gy, m gy, fn - m (c & cg)?
539½		SH; lt gr gy; @ 544 → rd br Bottom at 545

HOLE NO. 107 AREA Sec. 10 12-9

FROM	TO	DESCRIPTION
0	6	Blow sand
6	45	SS; lt or br, to lt br gy, mod arg to v arg
45	180	SH; dk gy, v arena; @ 84 → m gy, v - ex arena
180	267	SS; lt gy, fn - m, all qtz; @ 183 → dk gy w/ carb; @ 186 → lt gy, all qtz; @ 252 → m gy w/s carb
267	300	SH; lt gr gy, mod arena; @ 285 → lt gr gy w/ br gy
300	315	SS; lt gr gy fn - m, v ark; @ 306 → m - c; @ 312 → m, c, & cg, w/br gy
315	345	SH; lt gr gy w/br gy, v arena; @ 321 → sli arena
345	401½	SS; lt gr gy, m - c, v ark; @ 351 → m, c, & cg Begin core at 354, SS m gy, m - c & v c, w com v ark, feld alt to kaol; @ 360 → c & cg int bdd w/gr cl; @ 361 → m gy, m, c, & cg, A Kaol, ark, sli arg; @ 373 → m - c, A kaol, sli arg; @ 380½ → fn 0 m, v ark, fn diss py; @ 387½ → w/stks gr cl; w cem w/A calc, m - c, s cg; @ 396 → fn - m, f cem, fn diss py sli arg; @ 399 → p cem; @ 400 → m - c, w cem w/A calc, A py; @ 400½ 5" w/cem w/A calc A pet res & A coff?
401½	427	SH; lt gr gy; @ 406 → w/ls nods, fn diss py & s pet res End core at 408 SH, lt gr gy
427	538	SS; m gy, fn - m, c & cg, v ark, s py
538		SH; lt gr gy; @ 540 → rd br Bottom at 545

HOLE NO. 108 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
258	321	SH; lt gr gy; @ 262 sli arena; @ 275 v arena; @ 300 sli arena; @ 312 rd br
321	365	SS; lt gr gy, fn - m, ark; @ 323 lost samples, driller reports SS @ to 337; @ 337 m gy, m - c, mod ark, A kaol, sli py; @ 339 w/gr cl gls; @ 343 m, c, & cg, from 343 to 358, 2½' recov, 2' lt gy, fn - m, mod arg, ½' m gy, fn - m, mod arg, A kaol; @ 358 f cem, fn - diss py; @ 360 w cem, w/ A calc; @ 361 intbdd lt gr gy SH & m gy SS, c
365	374	SH; lt gr gy, w/stks SS, ls nods, s pet res; @ 366 ex arena w/A py; @ 370 lt gr gy, fn - m, 3" f cem, wli arg fn py
374	381	SS; lt gr gy, cg, w/gr cl gls, w cem, A pet res, v ark; @ 376 m gy, m - c; @ 378 6" w cem A pet res & py; @ 379 lt gr gy, fn - m, v arg, A py
381	423	SH; lt gr gy, no arena; @ 388 end core all sample lost, driller reports SH
423	487	SS; driller reports; @ 465 begin core, m gy, w/stks gr cl; @ 468 fn, no cl; @ 474 m, mod arg; @ 475, lt gy, fn - m, no arg; @ 478 3" w/gr cl gls; @ 483 mod arg, p cem; @ 485 w cem w/A calc;
487	498	SH; rd br w/stks lt gr gy Bottom at 498'

This description begins at the top of the Morrison Formation

HOLE NO. 109 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
199	252	SH; lt gr gy, sli arena; @ 213 lt gr gy w/ red br; @ 225 lt gr gy; @ 234 lt gr gy w/ br gy; @ 243 rd br; @ 246 lt gr gy
252	328½	SS; lt gr gy; @ 255 fn - m, mod arg, v ark; @ 262 c, v ark; @ 271 c & cg; @ 275 mod arg; @ 279 m & c w/s cg, no cl; @ 288 lt gy, m - c, A kaol; @ 291 fn, p cem, mod arg; @ 293 f cem, no cl; @ 298 fn m, v ark, A kaol; @ 301 fn, w cem; @ 308 ex arg, A py in stks; @ 311, fn, m, w/stks A calc & pet res; @ 317, c & cg, v ark, A kaol, mod arg w/lt gr gy SH; @ 319 m gy, m, c & vc, stks gr cl; @ 322 c & cg, mod arg; @ 323 fn - m, w cem w/A calc; @ 328 dk gr gy, 4" A pet res & py, Coff?
328½	369	SH; lt gr gy w/rd br, no sand; @ 330 lt gr gy, sli arena; @ 333 end core samples lost, driller report
369	434	SS; drillers report; @ 385 begin core, lt gr gy, fn, sli arg, fn, diss py; @ 387 m - c, p cem, v ark; @ 388 v fn, fn - m, mod arg; @ 402 v fn w/stks of fn - m, sli arg; @ 412 mod arg, w gr cl gls, cl w/A py; @ 422 v fn, p cem, sli arg; @ 424 lt gy, f cem; @ 427 4" ex arg; @ 429 sli arg; @ 432 w cem w/A calc
434	461	SH; lt gr gy w/rd br, no sand; @ 436 ex calc; @ 437 lt gr gy; @ 438 ex arena, ex calc; @ 441 lt gr gy w/rd by; @ 444 mod - sli arena; @ 449 lt gr gy, ex arena; @ 452 rd br w/s lt gr gy; @456 sli arena Bottom at 461

HOLE NO. 111 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	20	Blow sand
20	37½	SS; lt br gy, fn - m (KM) v arg
37½	191	SH; dk br gy, v arena w/carb; @ 85 → m gy w/mica; @ 95 → lt gy, v arena; @ 125 → dk br gy, v arena
191	203	SS; med gy, fn; @ 203 → dk br gy w/carb
203	257	SH; lt br gy, arena; @ 242 → dk br gy
257	272	SS; m, br gy, fn - m, all qtz; @ 260 → lt br gy
272	302	SH; lt br gy, v arena; @ 299 → ex arena
302	338	SS; lt gy, fn - m, all qtz
338	386	SH; lt gr gy, arena; @ 383 → v arena
386	437½	SS; lt gr gy, fn - m, ark; @ 389 → m - c; @ 404 → m, c, & cg w/stks gr cl; @ 413 → m - c; Begin core at 418 lt gy, m, v ark, s py; @ 421 → fn - m; @ 423 6" ex arg; @ 423½ → fn, no arg, fn py; @ 425 → fn - m, lt gr gy, mod arg; @ 426 → lt gy, fn - m, sd arg, w/ calc; @ 428½ ½" gr cl; @ 430½ → cg w/m - c w cem w/A calc, cg feld, w/gr cl; @ 443 1' gr cl, ls nods, w/A pet res & Coff?. A py stks; @ 435 → dk gr gy, fn - m, w cem w/A calc, stks pet res & stks cg, cg qtzite pebs & feld; @ 437½ 2" A pet res, py
437½	452	SH; lt gr gy; @ 438 → mod arena; @ 439 → intbdd ls, gr sh, A pet res, py; @ 447 end core (go to wet samples;) @ 448 → ex arena
452	485	SS; m gy, m; @ 456 → v arg; @ 471 -- fn - m; @ 483 → ex arg; @ 484 6" rd br SH
485	501½	SH; lt gr gy, mod arena; @ 489 → sli arena; @ 494 → v arena
501½	544	SS; m gy, fn - m, mod arg; @ 504 → m, sli arg; @ 528 → m - c; @ 531 → fn - m; @ 537 → m - c; @ 541 → fn - m
544	555	SH; lt gr gy; @ 549 → v arena Bottom at 555

HOLE NO. 112 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	15	Blow sand
15	30	SS; lt br gy, fn - m, arg, gyp
30	159	SH; dk br gy, v arena; @ 48 → dk by; @ 60 → lt br gy, ex arena; @ 72 → lt gy; @ 93 → dk gy; @ 156 → lt gy
159	168	SS; m gy, fn gyp; @ 165 → v arg
168	243	SH; m gy, mod arena; @ 201 → v arena; @ 234 → ex arena
243	309	SS; lt gy, fn, all qtz; @ 261 → m gy, mod arg; @ 264 → lt gy, all qtz; @ 303 → m gy w/carb; @ 306 → dk gy w/carb
309	336	SH; lt gr gy, v arena; @ 330 → br gy
336	417	SS; lt gr gy, f - m; @ 378 m , c & cg; @ 384 → fn - m; @ 405 → m - c
417	427	SH; lt gr gy; @ 426 → v arena; lost samples
427	470	@ 427 driller reports SS to 470, Begin core at 470
470?	565½	SS; lt gr gy, m, v arg, w cem; @ 472 1' gr cl, v arena w/pet res; @ 473 → sli arg, lt gy; @ 484 → m - c, lt gr gy; @ 487½ 6" SH lt gr gy; @ 488 → fn - m; @ 489 → m - c & cg; @ 491 → fn - m, mod arg; @ 496 → v arg; @ 496½ → sli arg; @ 499½ → m gy, c - cg, ark; @ 502½ → c; @ 503 → m; @ 507½ → m gy, c; @ 520 → m , p cem; @ 524½ → m - c; @ 529 → lt gy, m 0 c; @ 532½ → m; @ 542 → m - c; @ 543 → lt gr gy, m - c & cg, v arg, r py; @ 545½ → int bdd SS, c - cg w/SH, lt gr gy, r py; @ 546 → m gy, m & c & cg; @ 549 → fn - m & c; @ 549½ → c, v ark; @ 550 → m - c, mod arg; @ 553 → fn - m, mod arg; (559-564) recov. 3" m gy, m @ 564 → w cem w/A calc
565½	569	SH; lt gr gy; @ 567 → rd br Bottom at 569

@ 350, 3½' .01%; @ 383 1' .01%; @ 445 1' .01%

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HOLE NO. 113 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	27	Blow sand
27	48	SS; lt gr gy, mod arg, gyp; @ 39 → m gy
48	177	SH; m gy, v arena; @ 51 → sli arena; @ 54 → 10YR8/2; @ 63 → lt gy; @ 66 →10YR8/2, ex arena w/stks lt gy, sli arena; @ 90 → lt gr gy, ex arena; @ 93 → dk gy, mod arena @ 147 → m gy
177	189	SS; m gy, sli arg; @ 180 → all qtz
189	238	SH; m gy, mod arena
238	293	SS; lt gy, all qtz
293	308	SH; lt gr gy, ex arena; @ 296 → mod arena; @ 299 → v arena
308	329	SS; lt gr gy, m - c, mod arg; @ 320 → fn - m
329	347	SH; lt gr gy, mod arena; @ 332 → ex arena; @ 341 → lt gr gy w/m gy, mod arena; @ 344 → ex arana
347	380½	SS; m gy, fn - m, ex arg w/SH, lt gr gy; @ 350 → m, sli arg; @ 353 → m - c; Begin core at 358; 358-363, 0' recov; @ 363 → int bdd SH, lt gr gy w/stks pet res & SS, fn - m, mod - v arg; @ 368 → SS, lt gr gy, v fn - f v arg; @ 369½ → mod arg; @ 376 → v arg; @ 376½ 4" gr cl; @ 379 → c & cg intbdd w/SH lt gr gy, sli py; @ 380 → fn - v fn, lt gr gy, v arg
380½	384	SH; lt gr gy, ex arena; @ 382 → v arena w/s py; @ 383½ → ex arena w/stks py & pet res
384	397	SS; lt gr gy, m - c w/~~xx~~ s py; @ 385 → m gy, m - c & cg, p cem, mod arg; @ 390-395 6" recov. SS, fn, v - ex arg, fn py; @ 395 → lt gr gy, m, c, & cg w/stks gr cl, gr cl w/pet res
397	419	SH; lt gr gy, sli arena, w/ls nods & Pet res; @ 398½ 3" ls; @ 403 → intbdd SH & ls, SH hi frctrd, A pet res; @ 416 → stks of bn gy, → v arena
419	430½	SS; lt gr gy, fn, v arg; @ 419½ → m gy, no arg, p cem; @ 423½ → m; @ 424½ → m, c, & cg, v arg; @ 427½ → fn, m, c & cg, w cem w/ A calc, w/stks gr cl & fn py; @ 429 → fn- m w cem w/A calc, stks py, s pet res
430½	467½	SH; lt gr gy w/ls nods, pet res & py, sli arena; @ 433½ → sh, lt gr gy - no else; @ 439 → w/ls nods & sli pet res; @ 443½ → sli arena; @ 444 → lt gr gy w/dk br gy; @ 448½ → lt gr gy; @ 449 → v arena; @ 450½ → no arena; @ 455 w/br gy, sli arena; @ 458 → mod arena; @ 462½ 3" dk ~~br~~ gr gy w/pet res; @ 463 gr gy v arena; @ 465½ w/br gy & ls nods; @ 466½ → ex arena

Cont'd.

HOLE NO. 113 Continued AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
467½	553	SS; lt gr gy, fn - m, p cem, v arg; @ 468 → w cem ~~w~~ w/A calc; @ 468½ → fn - m, p cem, A py, fr gy, mod arg; @ 477 → m & c, v ark, fn diss py, w/gr cl gls; @ 481½ → fn - m, w cem, fn diss py; @ 486 1' v fn w cem w/A calc A pet res, A py, coff?; @ 4952" gr cl → c - cg, m gy, v ark, w/A pet res, fn diss py, (500 - 505, 0' recov); @ 505 → m gy, m, c, & cg, w/gr cl gls, v ark; @ 507½ 6" w cem w/A calc; @ 508 → lt gr gy, m; @ ~~8x~~ 509 → m gy, m - c v arg; @ 515 → intbdd c & cg w/SH, lt gr gy, v ark, stks pet res & py & ls nods; @ 520 → lt gr gy, m w/A py; @ 521 → p cem, A py; @ 522½ → f cem w/stks py; @ 532½ 1' w/gr cl gls; @ 534½ → lt gr gy, fn, sli arg, mod arg; @ 543 → m - c, w/stks gr cl; @ 545½ → intbdd m & c w/SH, gr gy; @ 546 → p cem w gr cl & c - cg; @ 548½ → m, no cl; @ 551 → mod arg; @ 552 → w cem w/A calc
553		SH; gr gy w/stks of br gy, mod - v arena, mod calc; @ 561½ → rd br, no arena Bottom at 564

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HOLE NO. 114 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	21	Blow sand
21	66	SS; lt or gy, f arg; @ 24 → br gy, sandy SH
66	210	SH; m - dk gy, mod - v arena
210	288	SS; lt gy, fn - m, all qtz; @ 219 5' dk gy, v carb
288	326	SH; lt gr gy, mod arena
326	330	SS; lt gr gy, fn - m, ark
330	342	SH; lt gr gy, v arena
342	398½	SS; lt gr gy, fn - m, ex arg; @ 348 → m - c, v ark, sli arg; @ 354 → m; @ 369 → m, c & cg, v arg, v ark, w/py; Begin Core @ 378; @ 381 → fn - m, w cem; @ 382 → p cem, mod arg; @ 385 → v arg; @ 386 → c, v arg; @ 388 → c - cg, v arg, v ark; @ 392 → m, v arg w/gr cl nods; @ 394 → c - v c w cem w/A calc; @ 396 → fn - m, w cem w/A calc; @ 398 9" fn, w cem w/A calc, dk gy, coff?
398½	417	SH; lt gr gy w/br gy, w/ls nods; @ 406 → mod arena; @ 408 → ex arena w/A calc, v w cem; @ 410½ → ex arena, f cem, sli calc; @ 412½ → gr gy, sli arena w/ls nods, s pet res;
417	421	SS; lt gr gy, v fn w/cem W/ A calc, fn diss py, s pet res
421	500	SH; lt gr gy, mod arena; @ 427 → sli arena; @ 430 → ex arena; @ 432 → w/ls nods, pet res, mod arena; @ 439½ → ex arena; @ 440½ → wet samples SH, lt gr gy, mod - ex arena
500	548½	SS; lt gr gy - m gy, fn - m (c & cg)?
548½		SH; lt gr gy
		Bottom at 550

HOLE NO. 119 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	21	Blow sand
21	54	SS; lt or br to lt br gy, arg
54	198	SH; m - dk gy, carb, mod arena - v arena
198	269	SS; lt gy, fn - m, mod arg; @ 207 → dk gy w/s carb; @ 143 → all qtz
269	333	SH; lt gr gy, mod arena; @ 306 → lt gr gy w/ br gy, v arena; @ 321 → ex arena; @ 327 → mod arena
333	339	SS; lt gr gy, m - occ c, v arg; @ 336 m - c & v c
339	346	SH; br gy, w/lt gr gy, mod arena
346	366	SS; lt gy, m & c, ark, sli arg; @ 354 → c, v ark
366	393	SH; rd br, mod arena; @ 368 wet samples begin; @ 370 → lt gr gy, w/stks rd br
393	403	SS; lt gr gy, fn - m; Begin core at 395 lt gr gy w/m gy, fn - m, v ark, mod arg; @ 399 3" m, w gr cl; @ 400 → v fn - fn; @ 401 → lt gy, m, v ark, A haol; @ 401½ → lt gr gy, fn - m, A calc, w cem, A py
403	414 3	SH; gr gy, ex arena; @ 404 sli arena
414	434½	SS; lt gr gy, ex arena, m - c; @ 415 → fn - m, w cem, pet res stks v arg; @ 416½ → m, v arg; @ 420 → v fn, ex arg; @ 422 → v fn - fn, m gy, no arg; @ 423 → m & c, mod arg; @ 425 → fn - m, no cl, w cem, s py; @ ~~427½~~ 427 6" c - cg; @ 428 → dk gy, fn - m, s py, coff? sli arg; @ 428½ → m - c, w/stks gr cl; @ 432 → m, w cem, lt gy, A calc
434½	448	SH; lt gr gy, w/br gy, sli arena; @ 438 → no arena w/rd br End Core 440
448	538 8	SS; lt gr gy → m gy, fn - m
538		SH; rd br w/lt gr gy Bottom at 540

HOLE NO. 116 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	15	Blow sand
15	45	SS; lt or br, to lt br gy, mod - ex arg
45	177	SH; m - dk gy, mod - v arena w/carb
177	266	SS; lt gy, fn - m, all qtz; @ 207 → m gy w/s carb; @ 210 → all qtz
266	309	SH; lt gr gy, ex arena; @ 291 → lt gr gy w/ br gy, v arena
309	315	SS; lt gr gy, fn - m, mod arg, ark; @ 312 → m - c w/py
315	333	SH; lt gr gy, sli arena; @ 327 → v arena; @ 330 → ex arena
333	354	SS; lt gr gy, fn - m, mod arg; @ 342 → sli arg
354	365	SH; lt gr gy, mod arena; @ 357 → no arena; @ 360 → lt gr gy w/br gy
365	404½	SS; m gy, fn - m, ark, w/py; Begin core at 368 m gy, fn, sli arg; @ 369 1' c, ex arg; @ 370 → v fn, mod arg w/stks ex arg, SS w/fn diss py; @ 375 → v fn - fn, sli arg; A fn diss py; @ 382 6" gr cl, c - cg SS; @ 391½ 4" w cem w/A calc; @ 392 1' gr sh; @ 393 00 lt gr gy, m & c, ex arg w/s pet res, ex arg , lt py in stks; @ 403 → v c & cg, v arg, A py; @ 403½ → w cem w/A calc, fn & m
404½	421	SH; lt gr gy w/rd br, sli arena; @ 406 → lt gr gy, no SS; @ 411 → sli arena; @ 413 → mod arena; @ 414 → m gy, mod arena; @ 417 → v arena; @ 418½ → mod - sli arena edn core at 421
		From 421 all samples lost, driller reports;
421	432	SH
432	474	SS; mod ex arg
474	491	SS, fn, p cem, or rd
491	524	SS; intbdd w/SH, w cem
524	535	SH; lt gr gy, w/rd br
		Bottom at 535

HOLE NO. 117 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
252½	360	SH; lt gr gy, ex arena; @ 257½ sli - mod arena; @ 282 br gy; @ 300 lt gr gy; @ 350 v arena; @
360	389	SS; lt gr gy, f v fn, mod arg; @ 361, m - c, v ark, no cl; @ 364 fn - m stks cg, w/stks gr cl, v py, v arg; @ 366 fn - m stks c & cg, fn, diss py, w cem; @ 371 p cem; @ 372½ w cem; @ 377 m - c & cg, w/gr & rd bl gls; @ 378½ 6" v c & cg, w/gr cl; @ 379 6" gr cl; @ 379½ c & cg; @ 380 m gy w/rd br, c & v c, v ark, hem stain; @ 382½ 6" c & cg, w/ cem w/A calc; @ 383 intbdd fn & m w/ c & cg, v ark; @ 385½ w/gr gy & rd br cl gls; @ 388 fn - cg, w cem w/A calc;
389	446	SH; lt gr gy, mod arena; @ 390 no arena; @ 406 mod arena; @ 411 sli arena;; @ 420 rd br w/lt gr gy?; @ 431 v arena; @ 444½ rd br w/lt gr gy
446	506	SS; lt gr gy w/rd br, fn, w cem w/A calc; @ 447 no calc; @ 451 rd br, fn - M; @ 456 m - c; @ 459 fn - m; @ 462 rd br w/gr gy, mod arg; @ 463½ 8" SH, gr gy w/rd br, v arena; @ 464 m - c, v arg; @ 466 rd br, fn - m, sli arg; @ 470½ 6" lt gr gy w/rd br, A calc; @ 471lt gr gy & rd br, fn - m, A pet res; @ 471½ dk gy w/rd br, stks pet res; @ 473½ p cem; @ 474 lt rd br w/lt gr gy; @ 477½ 6" lt or br w/m gy; @ 478 or br, w cem w/A calc; @ 479 m, f cem; @ 486 lt gr gy w/rd br, v arg; @ 488 lt gr gy, m - c, intbdd w/rd br SH; @ 493 lt gr gy, fn - m, ex arg w/rd br SH; @ 497 lt gr gy w/rd br, no cl; @ 500 6" w cem w/A calc;
506	517	SH; lt gr gy w/rd br, sli arena; @ 509 lt gy A calc w/ls nods; @ 515 rd br w/lt gr gy, ex arena
517	525	SS; lt gr gy, m, no cl; @ 518 rd br, fn - m; @ 521 lt or br, lim stn; @ 522, rd br c - v c, no cl; @ 524 lt or br w/m gy, v w cem

Bottom at 525

May 11, 1956

HOLE NO. 116 AREA 30.19, 13.7

DEPTH	RESULTS
420	4
404	2
403	4
403	1
401½	4
401	1
400½	8
400	7
399½	4
399	3
398½	4
397	5
396½	6
396	4
395	7
395	7
394½	6
394	5
393½	6
393	4
356	5
355½	5
355	7
354½	8
354	8
353½	5
353	3
317	4
317	4
316½	11
316	8
315½	7
315	4
314½	4
314	2

COUNTS 20

TOTAL DEPTH 535

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MAY 17, 1956

HOLE NO. 215 AREA Sec. 10, 12-2

DEPTH	READING
535	3
434	6
433	6
432	5
431	3
409	7
408	6
407	4
406	4
401	6
400	5
399	6
378	3
376	7
375½	10
375	10
374½	6
374	5
373	5
372	4
371	6
370½	8
370	10
369½	12
369	10
368½	8
367	6
366	3
342	5
341½	7
341	10

DEPTH	READING
340½	10
340	8
339½	6
339	4
338	2
333½	5
332½	4
268	2
	2
SURFACE	3

CASING 20

TOTAL DEPTH 540

MAY 15, 1956

HOLE NO. 283 [illegible] 28 T. 23-9

LEVEL	NO. HITS
564	4
563	3
562	4
558	10
557½	12
557	12
556½	9
556	6
555½	6
555	3
437	5
436	5
415	6
414½	4
400½	8
400	9
399½	6
399	8
398½	7
398	4
397½	3

FROM 402 up, Logged
by Emmiro

CASING TO 560

TOTAL DEPTH 564

ALL READINGS ON
SCALE 5

HOLE NO. 111 Area Sec. 10, 12-2

DEPTH		READING
553		2
547		3
520		5
519½		4
519		5
518½		5
518		3
503		5
502½		5
502		4
501½		6
501		6
500½		9
500		10
499½		8
499		8
498½		7
498		6
497½		5
497		3
491		4
490½		6
490		5
489½		9
489		12
488½		20
488	12	30
487½	8	
487		8
486½		4
479		5
478½		9
478		8
477½		10
477		10
476½		13
476		10
475½		10
475		7
474½		9
474		6
473		6
472		4

DEPTH	READING
457½	4
457	6
456½	7
456	6
455½	7
455	7
454½	7
454	7
453½	6
453	3
449	2
438	7
437½	10
437	8
436½	7
436	8
435½	5
435	8
434½	8
434	10
433½	8
433	3
409	5
408½	6
408	14
407½	12
407	20
406½	10
406	10
405½	7
405	5
404	5
403	4
380	5
379	8
378½	10
378	9
377	8
376½	5
376	5
375½	4

TO: TOP
↓
3 & 2

[illegible] NO. [illegible] [illegible] 30.42, 122

DEPTH	[illegible]
422	[illegible]
373	3
372½	4
372	[illegible]
371½	8
371	3
370½	7
370	[illegible]
369	3
368	3
339	4
332	5
331	5
330	5
329	4
323	[illegible]
310	[illegible]
274	[illegible]

TOTAL DEPTH 422'

ALL [illegible] ON SCALE 5

HOLE NO. 108 AREA Sec. 10, 13-9

DEPTH	READING
460	2
421	3
420	6
419½	10
419	8
418½	6
418	3
378	4
377½	6
377	6
376½	5
376	5
375½	5
375	6
374½	7
374	6
373½	4
373	3
261	5
260	3
258	6
257½	5
257	6
256½	4
256	3
255	2

TOTAL DEPTH 498'

ALL READINGS ON SCALE 5

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HOLE NO. 127 Sec. 10 13-9

LENGTH	VOLUME
512	3
511	2
510	3
515	5
514½	5
514	5
513½	3
513	4
512	3
421	4
420	4
402	3
315	3-4
315	2
264	5
267½	5
267	4

NO VOLUME
2-3

TOTAL LENGTH 5457

NO CASING

HOLE NO. 132 AREA [illegible]

DEPTH	RETURNS
591	3
508	4
507½	5
507	6
506½	4
506	5
505	4
500	3
374	6
373½	5
373	5
372½	4
372	3
336	5
335½	7
335	10
334½	[illegible]
334	5
333½	3
↓ Surface	

TOTAL DEPTH 597'

CASING 20'

HOLE NO. 124 DATE Dec. 10, 1952

DEPTH	READING
582	2
580	4
579½	4
579	4
578½	3
578	3
575	4
574	4
573	4
572	4
571	4
570	4
569	4
563	3
557	4
556½	5
556	7
555½	10
555	12
554½	10
554	6
553½	5
553	4
552	3
551	4
550½	7
550	10
549½	7
549	9
548½	5
548	3
509½	4
509	5
508½	4
508	3

DEPTH	READING
472½	4
472	4
471½	3
433	4
403	4
402½	6
402	4
401½	5
396	3
377	4
376½	6
376	8
375½	3
375	7
374½	8
374	6
373½	4
362	5
361½	4
361	5
360½	5
360	7
359½	6
359	9
358½	8
358	5
357½	4
356½	5
356	4
355½	5
355	6
354½	4
326	2

CASING 20'

TOTAL DEPTH 593'

ALL READINGS ON SCALE 5

HOLE NO. 101 AREA Sec. 10, 15-2

DEPTH	READING
561	4
552	5
551	6
550½	7
550	9
549½	4
549	4
547	3
543	4
542	5
541	5
540	4
539	3
537	4
532	3
458	4
457	4
456½	7
456	4
455	4
441	2
435	3
432	6
431	7
430	4
429	4
427	2
393	4

DEPTH	READING
373	2
334	3-4
319	3
318	5
317½	7
317	7
316½	5
316	4
315½	3
311	5
310	4
309	4
308	3
302	4
301	4
300	3
299	4

CASING 430'

TOTAL DEPTH 561'

ALL READINGS ON SCALE 5

BORE NO. 102 [illegible]

DEPTH	READING	DEPTH	READING
[illegible]	[illegible]	[illegible]	[illegible]
563	3	395	4
[illegible]		394½	5
[illegible]	3	394	4
56[illegible]	2	393	4
56[illegible]	5	392	3
[illegible]	6	391	4
562	0	390	3
530	4	389	3
529	3	389-377	4
478	4	376	4
477	3	375	4
1[illegible]	2	374	4
453	4	369	4
452	5	369	2
451	7	333	3
450½	7		
450	8	329	4
449½	9		
449	8	328	4
448½	7		
448	5	327	4
447½	6		
447	7		
446½	5	TOTAL DEPTH	621'
446	4		
		ALL READINGS ON SCALE 5	
445	4		
444	6		
443	3		
442	3		
441	3		
397	2		

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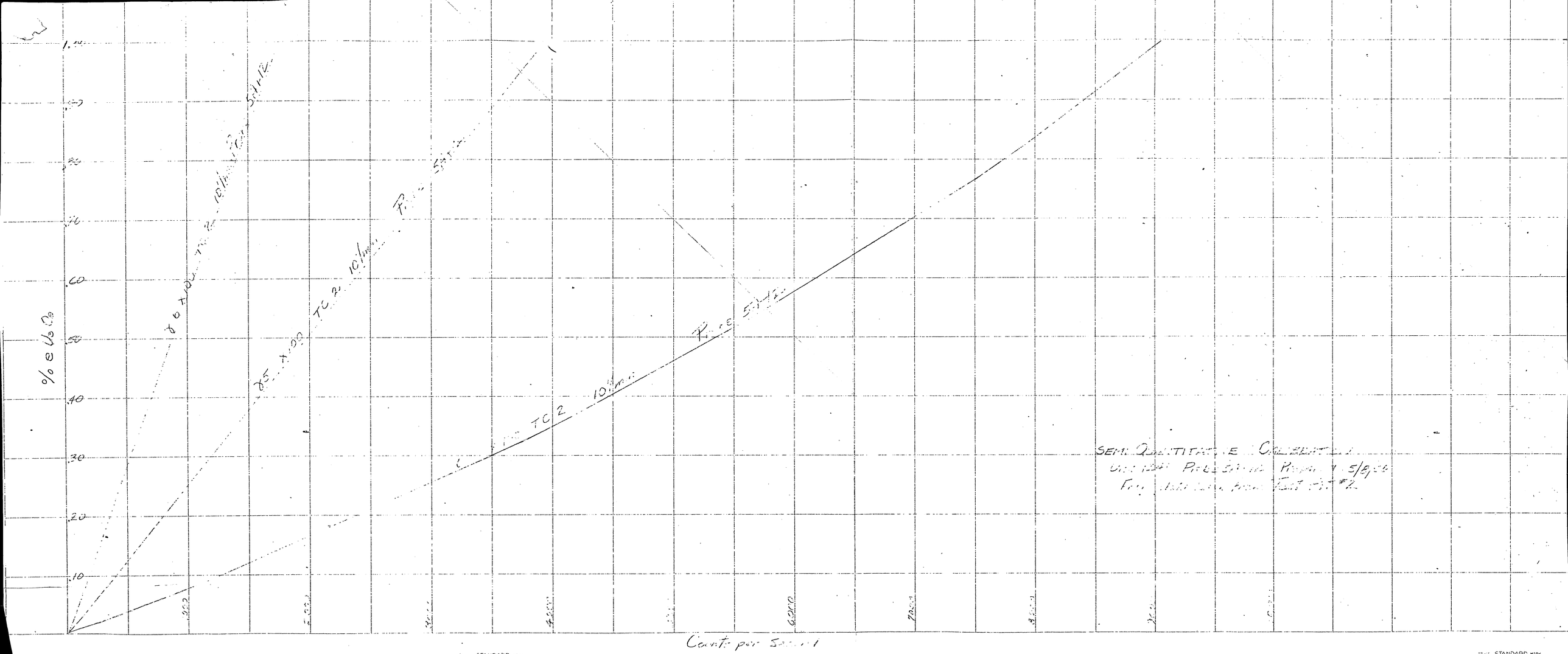

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GEOLOGICAL SURVEY

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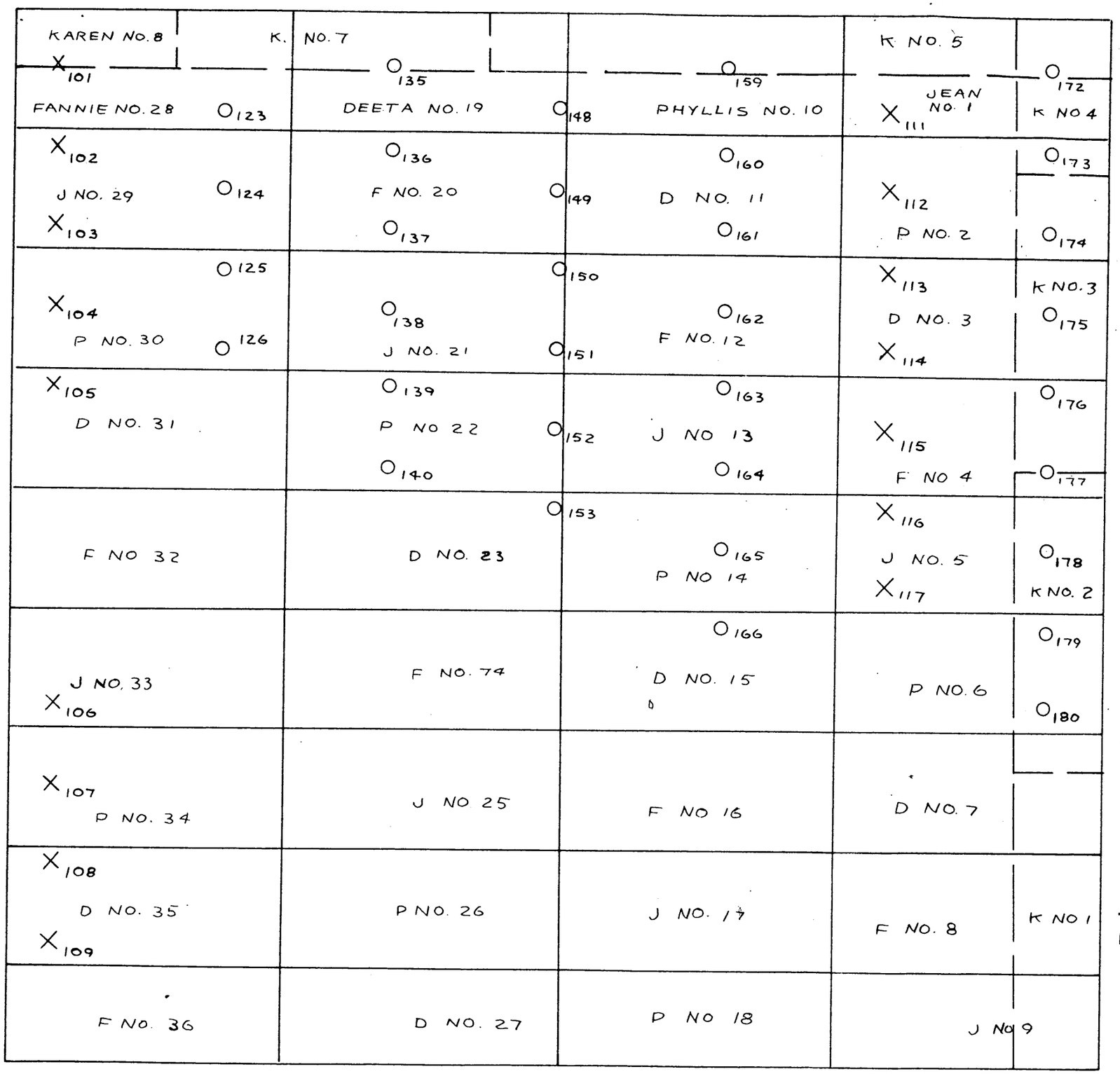
DOCKET 4017
JUNE 1956



EXPLANATION

O 123 PROPOSED STAGE II HOLES

X 103 COMPLETED STAGE I HOLES

NOTE: CLAIM BOUNDARIES AND HOLE LOCATIONS FROM APPLICANT'S MAP

N

600 0 1200 FEET

FIGURE 1. SKETCH MAP OF SECTION 10, T 13 N., R 9 W. SHOWING COMPLETED STAGE I HOLES AND PROPOSED STAGE II HOLES, COLAMER CORPORATIOIN, McKINLEY, COUNTY, NEW MEXICO.

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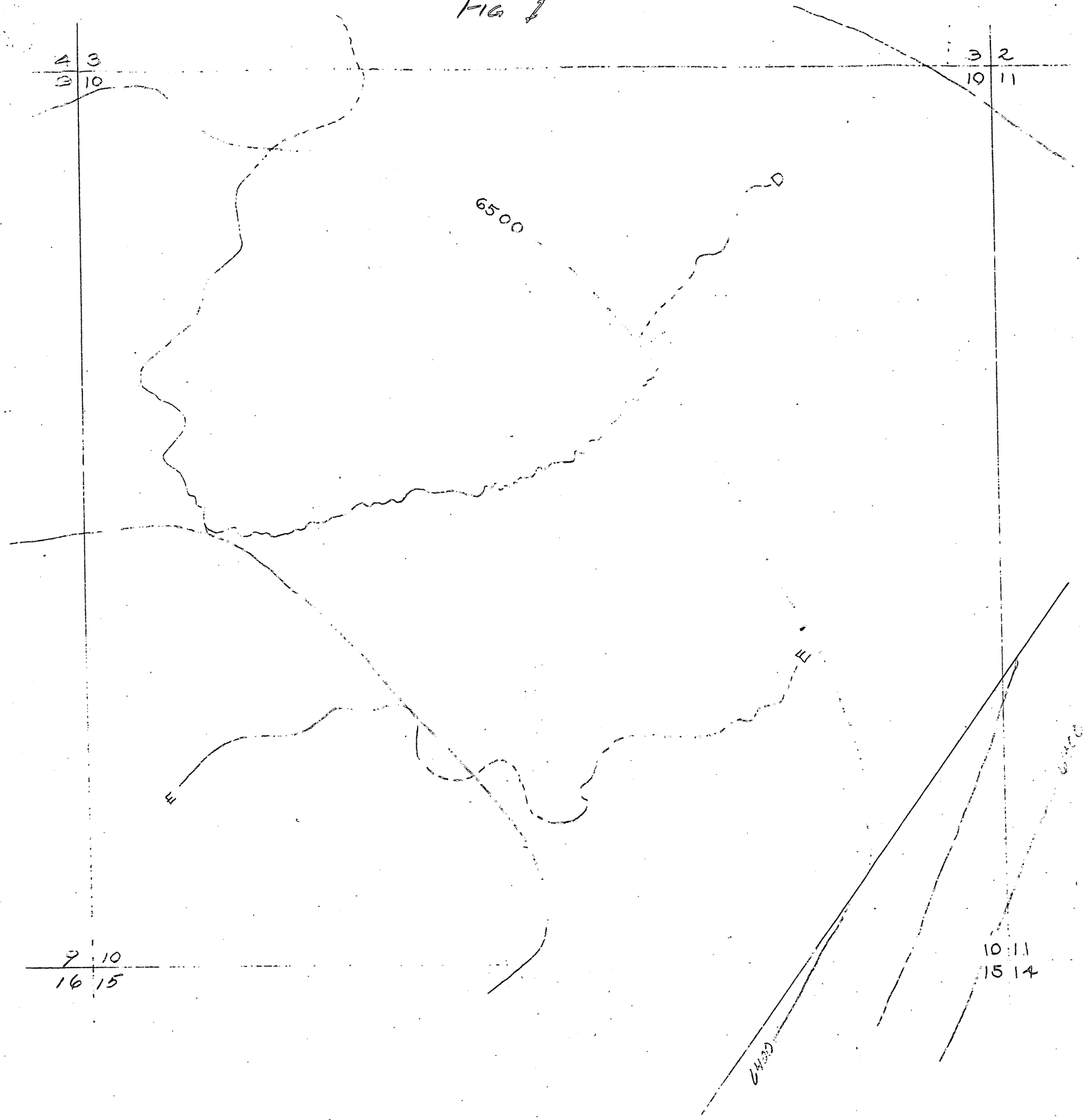
Fig 1



MAPS
&
some drill logs

EXPLORATION ALA...
WASHINGTON 25, D. C.
OFFICIAL BUSINESS

Official

RECEIVED
DATE 1/20 CODE 110 700 225

224 New Customhouse
Denver 2, Colorado
January 17, 1958

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4017 (Uranium) Contract Idm-E940, Colamer Corporation (Phillis, Fannie, Jean, and Deeta Group) McKinley County, New Mexico - TENTATIVE FINAL PAYMENT

Enclosed are two copies of a memorandum to T. A. Christensen, dated January 10, 1958, relative to tentative final payment under the terms of the subject contract.

Original signed by
W. H. KING
W. H. King

Enclosures

JDC:hmh

cc: DMEA/DFC
MF-104 file, Reg. III
Corres. file, Reg. III
Chron

224 New Customhouse
Denver 2, Colorado

January 10, 1958

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 4017 (Uranium) Contract I3m-6946, Colamer Corporation (Phillis, Fannie, Jean, and Deeta group) McKinley County, New Mexico - TENTATIVE FINAL PAYMENT

Reference is made to our memorandum of November 1, 1956, whereby we transmitted the final Form MF-104, Operator's Monthly Report and Voucher, for the month of September, 1956, and requested that you withhold the amount of $500.00, from reimbursement to the Operator, pending resolution of matters prerequisite to closing the account.

The Operator's final report has been received; therefore, we recommend that tentative final payment to the Operator be made on the following basis, which is in conformance with the Report of Review of reported project costs by the Contract Administration and Audit Division, DMEA, dated November 7, 1957. The Report of Review includes reinstatement of certain costs previously disallowed by the Finance Office, Region III, and includes additional acceptable costs not yet reported by the Operator. The following relative correspondence is attached:

1. Copy of a memorandum, dated November 6, 1957 from the Acting Executive Officer, DMEA Field Team, Region III, to Donald T. Finch, DMEA Auditor, recommending reinstatement of costs incident to the drilling of Stage III hole No. 184.

2. Copy of a memorandum dated January 2, 1958, from Donald T. Finch, DMEA Auditor, to the Executive Officer, DMEA Field Team, Region III, concerning the procedure to be followed in making tentative final payment to the Operator

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AUDITS
BUREAU OF MINES

Basis for Tentative Final Payment:

Total accepted cost reported to date by the Operator	$58,612.84
Government participation at 75%	43,959.63
Total prior payments	42,563.69
Amount of tentative final payment	$ 1,395.94

As indicated in the Report of Review and in the attached memorandum, dated January 2, 1958, from Donald T. Finch, DMEA Auditor, an additional amount is due the Operator if properly claimed. Sufficient funds to cover the additional amount are to be retained in the account until such time as the Operator submits a supplemental Voucher covering the additional allowable costs, or until the account is otherwise closed.

Acceptable cost subject to claim by the Operator	$ 1,140.61
Less Audit offset	295.72
Balance	844.89
Government participation at 75% (to be claimed)	$ 633.67

Original signed by
W. H. KING

W. H. King

Enclosures

JDC:hmh

cc: Chmn. Op. Comm. (2)
DMEA/DFC) w/copy of Items 1 and 2
MF-104 file, Reg III)

Harshman
Hasler
DMEA/S. Jct.
Townsend
Corres. file, Reg. III
Chron

$1395.94
1/16/58 DMA 58-80

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JAN 13 1958
AUDITS
BUREAU OF MINES

224 New Customhouse
Denver 2, Colorado

November 6, 1957

Memorandum

To: Donald T. Finch, DMEA Auditor

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 4017 (Uranium) Contract Idm-2940, Calamar Corporation (Phillis, Fannie, Jean, and Dorta group) McKinley County, New Mexico - Disallowance of footage claimed for Hole No. 184.

With reference to the disallowance of costs claimed by the Operator in drilling Hole No. 184, discussed in your memorandum of November 5, 1957, I do not agree with the disallowance for reasons as follows:

1. Hole No. 184, as well as 182, 183, and 185, were offset holes to Hole No. 123.

2. The justification for offsets to Hole No. 123 was based on mineralization found between depths of 425 and 426.5 feet in that hole.

3. The collar elevations of Hole No. 123 and of the four offset holes are about the same, and the sedimentary rocks are essentially horizontal. The principal target of Hole No. 184 was, therefore, a sandstone bed at a depth of about 425 to 430 feet.

4. Hole No. 184 was drilled non-core to a depth of 400 and cored from that point to a depth of 455 feet.

It is my opinion that Hole No. 184 reached the principal objective and was drilled according to the terms of the contract. Acceptance of costs incurred in drilling this hole is recommended.

Original signed by
E. N. HARSHMAN
E. N. Harshman

cc: Harshman
DMEA,HPC
Townsend
Corresp. file
MF-104 file (5)
Chron.

RECEIVED
JAN 13 1958
AUDITS
BUREAU OF MINES

224 New Customhouse
Denver 2, Colorado

January 2, 1958

Memorandum

To: W. H. King, Executive Officer, DMEA Field Team, Region III

From: Donald T. Finch, DMEA Auditor

Subject: Report of Review - Colamer Corporation
Docket No. DMEA 4017 (Uranium), Contract No. Idm-2940
(Sec. 10, T 13 N, R 9 W) McKinley County, New Mexico

Reference is made to the Report of Review dated November 7, 1957, and the request by your staff concerning present and contingent payments due the contractor.

The following schedule of costs and Government participation has been prepared in accordance with a letter from Mr. J. L. Chambers, Director of Contract Administration and Audit Division, DMEA: dated December 3, 1957

COSTS

Total cost claimed by Operator			$58,612.84
Exceptions per schedule attached to Report of Review			
By Finance Officer	$1,194.59		
Less: Reinstatement by audit	906.57	$ 288.02	
Disallowance during Review		7.70	295.72
Total Net Cost Claimed			$58,317.12
Add: Acceptable cost (not claimed) to offset disallowance			295.72
Total Accepted Cost Claimed			$58,612.84
Additional cost allowable		$1,140.61	
Less offset used above		295.72	
Net additional cost if claimed			$ 844.89

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JAN 13 1958
AUDITS
BUREAU OF MINES

GOVERNMENT PARTICIPATION

The contract calls for a 75 percent participation of accepted costs. Therefore, payments as follows are valid and proper: -

On cost claimed	$43,959.63	
On additional cost if claimed	633.67	
Total amount payable if claimed		$44,593.30
Amount payable on audited claim	$43,959.63	
Amount reimbursed	42,563.69	
Balance due on audited claim		$ 1,395.94
Additional amount due Operator if claimed		$ 633.67

Donald T. Finch

Donald T. Finch, Auditor.

DTF:bh

cc: MF-104 Files (5)
J. L. Chambers
Subject
Chron.

RECEIVED
JAN 13 1958
ANTIGUA

RECEIVED
JAN 13 1958
AUDITS
BUREAU OF MINES

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

RECEIVED NOV 8 1956 D.M.E.A.

Administrative Audit Difference Statement

[illegible]

[illegible]
[illegible]
[illegible], New Mexico

Date: [illegible]
Payee's Reference: [illegible]

FINAL DISTRIBUTION

MADE NOV 6 1956

[illegible]

DMEA-4017

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ [illegible]

Difference $ [illegible]

Amount Approved $ [illegible]

The reason for the difference was due to:

[illegible] [illegible], a part of the cost of [illegible] charged to [illegible] drilling.

[illegible] [illegible] pertains [illegible] additional work under the contract.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

November 1, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 4017 (Uranium) Contract Idm-E940, Colamer Corporation (Phyllis, Fannie, Jean and Deetta claims) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of September, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended on the following basis, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Disallowance, Non-Core drilling

Disallow an amount of $8.02, a part of the cost of stand-by time which the Operator has charged to non-core drilling. The cost of stand-by time has been prorated by this office according to the ratio of core footage to non-core footage drilled in Holes 194 and 207, for which stand-by time was charged. All core drilling was performed at the maximum allowable unit cost, therefore the above amount, which was prorated to core drilling, is not allowable. The maximum allowable unit cost for non-core drilling was not exceeded after adding the cost of stand-by time prorated to non-core footage.

Withhold an amount of $500.00 pending possible additional work under the contract, or if additional work is not approved by the Government and performed by the Operator, continue to hold the above amount pending resolution of matters relative to closing the account.

Reconciliation with Amount Reported by the Operator on Form MF-104 for September, 1956

Amount reported on Form MF-104 for Sept., 1956 - - - -	$4,009.80
Amount to be disallowed -	8.02
Total accepted cost for September, 1956	$4,001.78
Government participation at 75 percent - - - - - - - - - -	$3,001.34
Amount to be withheld -	500.00
Recommended payment to the Operator	$2,501.34

Remarks

Date of Report - - - - - - - - - - - - - -	October 3, 1956
Date Received in Field Office - - - - -	October 8, 1956
Date Received in Region Office - - - -	October 23, 1956

Original signed by
W. M. TRAVER

W. M. Traver

Enclosures

JDC:jy
cc: MF-104 File E940
Chm. Op. Comm. (2)
Shaw (2)
Marshman)
Townsend) w/copy of engr's. report
Chron.

REGION III

Memorandum

Building 20
Denver Federal Center
Denver 2, Colorado
October 22, 1956

RECEIVED NOV 8 1956 D.M.E.A.

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: D. E. Redmon

Subject: Docket DMEA 4017 (Uranium) Contract Idm-E940, Colamer Corporation, Phyllis, Fannie, Jean, and Deetta claim groups, Sec. 10, T. 13 N., R. 9 W., NMPM, McKinley County, New Mexico.
--Progress report for September 1956

An inspection of progress was made September 12, 1956, by W. D. McMillan, Bureau of Mines, accompanied by J. Haly, geologist for the operator.

Six holes were drilled during the period. Hole No. 207 (2700N - 2250W) is classified as a stage II hole (refer to confirming letter from W. M. Traver to Kelsey Boltz, August 24, 1956). Hole Nos. 194, 195, 196, 197, 198, are stage III holes (aforementioned reference). Hole data is as follows:

Hole No.	Plug-bit feet	Core-bit feet	Total feet	% Core recovery	Remarks
194	355	37	392	100	Barren
195	370	25	395	88	Barren
196	360	40	400	100	Barren
197	345	75	420	91	1.0' - .02 eU_3O_8
198	370	51	421	100	2.0' - .02 eU_3O_8
*207	414	108	522	32.9	0.5' - .02 eU_3O_8
Total	2214	336	2550	76	

*Stage II hole authorized to be drilled through the Westwater Canyon member.

Claim for standby time is supported by Minerals Engineering Company driller's logs.

Approved costs are as follows:

Plug-bit drilling - 2214 feet at $0.95 a foot	$2,103.30
Core-bit drilling - 336 feet at $3.50 a foot	1,176.00
Standby time - 3 1/2 hours at $12.00 a hour	42.00
Incidental allowance - 2550 feet at $0.27 a foot	688.50
Total approved costs	$4,009.80

It is recommended that 75 percent of the approved total, or $3,007.35 be approved for payment.

Progress accomplished in September completes approved stage II and stage III drilling. The operator indicates in his narrative report that "...further drilling in this zone is unwarranted."

It is recommended that at least $250.00 be withheld pending receipt of final report.

The operator's narrative report is adequate, as are the lithologic and radiometric logs and recapitulation of mineralization. All are retained in this office along with a complete set of drill contractor's logs. A duplicate set of drill contractor's logs for hole Nos. 194, 195, 196, 197 and 198 are submitted with this report. Only one copy of log for hole No. 207 was received and is retained in this office.

D. E. Redmon
D. E. Redmon
Mining Engineer

cc: 6
Idm-E940
Chron.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED OCT 8 1956 D.M.E.A.

Month of September, 1956 Docket No. DMEA 4017 Contract No. Icm-E940
Operator's Name COLAMER CORPORA ION Minerals URANIUM
Address GRANTS, NEW MEXICO
Contract Amount, $ 102,580.00 Government Participation: 75 % Amount, $ 76,935.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Core	1,176.00	16,946.30	18,122.30			
Bulldozing						
Crosscutting						
Drifting						
Drilling Plug Bit	2,145.30	27,536.48	29,681.78			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Inc. Allow @ $0.27/ft.	688.50	10,113.26	10,801.76			
Assays	-	7.00	7.00			
(8) Contingencies (specify):						
TOTALS	4,009.80	54,603.04	58,612.84	4,001.78	54,603.04	58,604.82
				11	1,186.57	1,186.57

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Oct. 3, 1956 *Payee COLAMER CORPORATION
Per [signature] Title GEOLOGIST

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of: 53,416.47 57,418.25
$ 2501.34

Signature [signature]
(Authorized Certifying Officer)

Date 11/2/56 Vou. No. DMEA 57-54
(See other side)

4 Previous Deductions
Note: Withheld 500.00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 940 in accordance with the terms of the contract.

Signature D. E. Redmon #3007 35 Title Min Engr Date Oct 22, 1956

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date NOV 1 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

RECEIVED NOV 8 1956 D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1956 Docket No. DMEA 4017 Contract No. Ion-E940
Operator's Name COLAMER CORPORATION Minerals URAIUM
Address GRANTS, NEW MEXICO

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	FT.	1,176.00	336	18,122.30	5912	3.07		
Churn								
Auger Plug Bit	Ft.	2,145.30	2214	29,681.78	34,094.5	0.87		
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Assays	ea.	-	-	7.00	2	3.50		
TOTAL DISTRIBUTED COSTS		3,321.30	2550	47,811.05				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Inc. Allow @ $0.27/ft.		688.50		10,801.76				
TOTAL COSTS		4,009.80		58,612.84				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Oct. 3, 1956 Operator COLAMER CORPORATION

Per [signature] Title GEOLOGIST

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only) D. E. Redmon

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

October 3, 1956

MONTHLY NARRATIVE REPORT OF DRILL SCHEDULE 4017
CONTRACT NO. Ida-1240
MONTH OF SEPTEMBER

During the month of September the following holes were completed:

HOLE NO.	PLUG (FT)	CORE (FT)	SEARCH TIME (HRS.)	DATE COMPLETED
194	355	37	½	9-01-56
195	370	25	-	9-01-56
196	360	48	-	9-01-56
197	345	75	-	9-02-56
198	370	51	-	9-03-56
207	414	103	2	9-03-56
Total	2214	336	3½	

Holes numbers 194 through 198 inclusive were offset holes through the Poison Canyon sandstone near mineralized first stage holes numbers 117, 165 and 179. The mineralization found in these offset holes was slight and occurred only near the upper and lower contacts of the Poison Canyon sandstone. With this information I believe that further drilling in this zone is unwarranted.

Hole No. 207 showed one half foot of 0.025 U_3O_8 (radiometric) @ 417 at the bottom of the Poison Canyon sandstone, and a Poison Canyon sandstone thickness of 52 feet. The sandstone is bleached in this area.

Core recovery this month has averaged 76%

Enclosed with this report are:

1. Lithologic logs
2. Drillers logs
3. Recapitulation of mineralization
4. Radiometric logs
5. One original and four copies of
   (a) MT104
   (b) MT104A
   (c) Monthly narrative
6. Invoice from drilling contractor

Very truly yours,

COLORADO CORPORATION

Delsey L. Foltz

DELSEY L. FOLTZ

FLS:lj

RECEIVED
OCT - 8 1956

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

[illegible] Corporation
[illegible] Drilling
[illegible], New Mexico

Date: [illegible]
Payee's Reference: [illegible]

FINAL DISTRIBUTION
MADE OCT 5 1956

DMEA-407

Conditions:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ [illegible]

Difference $ [illegible]

Amount Approved $ [illegible]

The reason for the difference was due to:

Discussion: Hole No. [illegible] was not completed to its objective, therefore the drilling costs and incidental allowance for this hole are disallowed.

(a)	[illegible] ft core drilling @ [illegible] per ft.	[illegible]
(b)	[illegible] ft [illegible] drilling @ [illegible] per ft.	[illegible]
(c)	Incidental allowance for [illegible] ft. drilling @ [illegible] per ft.	[illegible]
	Amount to be disallowed.	[illegible]

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

September 28, 1956

RECEIVED
OCT - 8 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 4017 (Uranium) Contract Idm-E940, Colemer Corporation (Phillis, Fannie, Jean and Dasta groups) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of August, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

Except as otherwise noted below, it is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended on the following basis, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Hole No. 184 was not completed to its objective, therefore the drilling costs and incidental allowance for this hole are disallowed as follows

Disallow

a) The cost of 55 feet of core drilling at $3.50 per foot----------	$192.50
b) The cost of 400 feet of non-core drilling at $0.95 per foot----------	380.00
c) Incidental allowance for 455 feet of drilling at $0.27 per foot----------	122.85
Total amount to be disallowed	$695.35

Reconciliation with Amount Reported by the Operator on

Form MF-104 for August, 1956

Amount Reported	$10,734.36
Amount to be disallowed	695.35
Total accepted cost for August, 1956	$10,039.01
Government participation at 75 percent	$ 7,529.26

Fifteen holes were reported for the period, including Stage III hole No. 184 which was disallowed. Of the fourteen approved holes, three holes (180, 201, 206) were drilled under Stage II and eleven holes were drilled under Stage III.

Remarks

Date of Report----------September 10, 1956
Date Received in Field Office---------September 17, 1956
Date Received in Region Office--------September 27, 1956

W. M. TRAVER

W. M. Traver

Enclosures

JBC:jy
cc: MF-104 File E940
Sec. Op. Comm. (2)
Shaw (2)
Kesler)
Townsend) w/copy engr's report
Chron.

RECEIVED
OCT - 3 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colo.
Sept. 26, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shea
Supervising Mining Engineer

From: W. D. McMillan

Subject: DMEA Docket 4017 (Uranium) Contract IAm-2560, Colmmar Corporation, Phillis, Fannie, Jean, and Doris claim groups, Sec. 16, T. 13 N., R. 9 W., NMPM, McKinley County, N. M. -- Progress report for August 1956

An inspection of progress was made on September 5, 1956, accompanied by Jean Baly, geologist for the applicant. Fifteen holes under Stage III were drilled during the period. Hole No. 154 was drilled to a depth of 465 feet but the last 10 feet was lost. The operator claimed payment for 455 feet. In as much as the hole was not completed its cost is disallowed.

Data on the holes from Mineral Engineering Company's logs and the geologic logs are given below.

Hole No.	Non-Core feet	Core Feet	Core Rec. %	Total feet	Remarks Interval	Rad.%	Chem.%
180	552	23	45	575	393-394	0.01	0.02
182	410	53	100	463	489-nev.in.	0.02	0.02
183	400	75	79	475	No count		
184	400	55	77	455	"		
185	420	75	60	495	376-nev.in.	0.01	0.02
186	440	25	84	465	444.5-445.5	0.01	
187	440	35	100	475	No count		
188	430	37	100	467	"		
189	445	31	88	476	458-nev.in.	0.01	
190	395	15	99	410	No count		
191	376	30	70	406	"		
192	385	31	88	416	280-282	0.015	0.02
193	362	43	96	405	341.5-342.0	0.01	
					370.5-371	0.03	0.04
201	398	187	75	585	No count		
206	338	127	76	465	378.5-379.5	0.015	
Totals	6151	842		7033			
Claimed	6151	842		6993			
*Disallowed	400	55					
Approved	5751	787					

Approved costs:

5751 feet plug-bit drilling at $0.95 a foot	$5501.45
787 feet core drilling at $3.50 a foot	2754.50
Incidental allowance 6538 feet at $0.27 a foot	1776.06
Chemical analyses 2 at $3.50 ea.	7.00
Total	$10,039.01

It is recommended that 75 percent of the approved total costs amounting to $7529.58 be approved for payment.

The operator's narrative report included geologic and radiometric logs, which are retained in this office. A summary of the drilling results is attached to the report. Core bit drilling was done with NX size bits.

The drilling contractor's logs were submitted in duplicate, and one set is included with this report. Assay Certificate for two samples is also included.

W. D. Mullikin
Mining Engineer

WDM/mr
cc: 6 Idn-Ryho Chron

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
OCT - 8 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1956 Docket No. DMEA 4027 Contract No. [illegible]
Operator's Name COLADER CORPORATION Minerals [illegible]
Address [illegible]
Contract Amount, $ [illegible] Government Participation: 75 % Amount, $ 76,935.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Core	2947.00	13,999.30	16,946.30			
Bulldozing						
Crosscutting						
Drifting						
Drilling Plug Lft.	5581.49	21,666.03	27,535.49			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Inc. Allow. 0.27 /ft.	1898.91	8,214.35	10,113.26			
Assays	7.00	0	7.00			
(8) Contingencies (specify):						
TOTALS	10,734.35	43,868.68	54,603.04	10,039.01	43,868.68	53,907.69
				491.22		491.22
				43,377.46		53,416.47

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 9-10-56 *Payee COLADER CORPORATION

Per Gene K. Caly Title GEOLOGIST

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is ~~correct and proper for payment~~ in the amount of:

$7529.26

Signature [illegible]
(Authorized Certifying Officer)

Date 10/3/56 Voucher No. DMEA 57-42
(See other side)

1 Previous Disallowance

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idaho-E 44P in accordance with the terms of the contract.

Signature W. McMillan (# 75 2938) Title Min. Engr. Date 9/18/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE

Signature W. M. Shaver Title Executive Officer Date SEP 28 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
OCT - 8 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 6 1956 Docket No. DMEA 4017 Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes	Ft.	2,047.00	212	16,946.00	5576	3.04		3.59
Drilling: Core								
Churn Aug 31	Ft.	5,331.45	6192	27,133.40	31,330.1	0.864		1.25
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Aug 25	Ea.	7.00	2	7.00	2	3.50	40	3.50
TOTAL DISTRIBUTED COSTS		8033.45		44,133.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.		2,633.91		10,113.26				
		10,724.35		54,493.84				
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Sept. 30, 1956 Operator [illegible]

Per Gene K. Caby Title [illegible]

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only) Wm. Miller

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

September 19, 1956

[illegible] PROSPECTS GROUP ON LYNX DOMAIN 4027
[illegible] NO. 16-[illegible]
[illegible] OF [illegible]

The following holes were completed during the month of August and all core drilled is to be paid for:

HOLE NO.	FEET DRILL	CORE	% RECOV.	DATE COMPLETED
120	592	23	65	8-12-56
122	419	59	100	8-20-56
123	400	75	79	8-21-56
124	400	99	77	8-27-56
125	420	77	69	8-22-56
126	440	25	84	8-17-56
127	440	35	100	8-16-56
128	430	37	100	8-18-56
129	445	31	80	8-19-56
130	395	15	99	8-23-56
131	376	30	70	8-30-56
132	385	31	68	8-30-56
133	362	43	96	8-31-56
134	393	157	75	8-31-56
135	333	127	76	8-31-56

As usual, the drilling contractor had great difficulty in getting good core recovery in some holes because the Folson Canyon and Westwater sandstones are very friable. However, as inspection reveals, core recovery has improved since the new agreement was made with the drilling contractor to make compulsory five foot runs when recovery falls below 85%.

Included with this report are complete driller's logs of each hole, a recapitulation of all mineralization encountered and the results of two assays.

Respectfully,

COLORADO CORPORATION

Gene K. Eaby

GENE K. EABY,
Geologist.

GKE:aj

HOLE NO.	INTERVAL & EQUIVALENT CHEM. %U308		REMARKS
180	393 - 394	(.01 - .02%)	Jmbb SH
182	429, several inches	(.01 - .02%)	Jmbb SH
183			No count
184			No count
185	376, several inches	(.01 - .02%)	Jmbb SS
186	444.5 - 445.5	(.01%)	Poison Canyon SS
187			No count
188			No count
189	452, several inches	(.01%)	Jmbb SH
190			No count
191			No count
192	280 - 282	(.015 - .02%)	KD
193	341.5 - 342	(.01%)	Jmbb SS
	370.5 - 371	(.03 - .04%)	Poison Canyon SS
201			No count
206	378.5 - 379.5	(.015%)	Jmbb SH & SS

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OCT - 8 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
SEP 17 1956

224 New Customhouse
Denver 2, Colorado

September 12, 1956

FINAL DISTRIBUTION
MADE SEP 14 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 4017 (Uranium) Contract Idm-E940, Colamer Corporation (Sec. 10, T13N, R9W) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of July, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Remarks

Date of Report - - - - - - - - - - - - - - - - - August 3, 1956
Date Received in Field Office- - - - - - - - August 13, 1956
Date Received in Region Office- - - - - - - August 28, 1956

W. M. TRAVER

W. M. Traver

Enclosures
JDC:jy
cc: MF-104 File E940
Sec. Op. Comm. (2)
Shaw (2)
Harshman w/copy engr's report
Chron.

DMEA
Date Rec'd.

AUG 28 1956

BUREAU OF MINES
Denver, Colorado

RECEIVED
SEP 17 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
August 27, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: W. D. McMillan

Subject: DMEA 4017, (Uranium) Contract Ldm-2940, Colemar Corporation, Phillis, Fumnie, Jean, and Dewta Claim Groups, Sec. 10, T. 13 N., R. 9 W., NMPM, McKinley County, New Mexico -- Progress report for July 1956

An inspection of progress was made on August 8, 1956, accompanied by Charts Cardwell, superintendent for the applicant.

Twenty holes were completed during the period. Data on these holes from Mineral Engineering Company's logs are given below:

Data from Mineral Engineering Company Logs

Hole No.	Plug-bit feet	Core-bit feet	Total feet	% Core Recovery	Core footage paid for	Remarks
123	499	96	595	75	96	1.5' - 0.06 eU_3O_8
124	554	27	581	96	27	<0.016 "
125	600	20	620	45	20	1.0' - 0.050 "
126	568	40	608	63	40	<0.013 "
135	483	127	610	55	70	1.0' - 0.033 "
136	553	54	607	34	25	1.0' - 0.040 "
137	552	45	597	86	45	1.0' - 0.030 "
138	471	136	607	68	136	<0.03 "
139	599	28	627	55	28	1.0' - 0.04 "
140	489	126	615	65	126	<0.023 "
150	576	29	605	53	29	1.0' - 0.026 "
151	601	19	620	84	19	<0.023 "
152	609	13	622	84	13	<0.026 "
153	560	28	588	90	28	<0.030 "
173	497.5	109.5	607	61	66.5	<0.023 "
174	478	120	598	73	87	<0.023 "
176	485	125	610	58	72	<0.033 "
177	503	42	545	35	42	1.0' - 0.033 "
178	566	10	576	78	10	1.5' - 0.040 "
179	335	40	375	87	40	3.5' - 0.051 "
	10,776.5	1,234.5	12,013		1,819.5	

In order to add incentive for better core recovery, the drilling contract with Minerals Engineering Company was amended on July 18, 1956 to pay for all core footage. Paid core footage, due to low percentage recovery, on the holes drilled prior to July 18, 1956, was 1,819.5 feet as compared with 1,234.5 feet actually drilled as claimed by the operator on Form RF-1044.

Approved costs are for 10,776.5 feet of plug-bit drilling at $0.95 a foot, or $10,239.98, and 1,819.5 feet of core-bit drilling at $3.50 a foot, or $6,368.25, and incidental allowance, 12,013 feet at $0.27 a foot, or $3243.51, a total of $17,851.34.

It is recommended that 75 percent of the approved total, or $12,788.51 be approved for payment.

The operator's narrative report is adequate, as it included radiometric logs of the holes, copies of radiometric logs by the U. S. Atomic Energy Commission, and a geologic log, which are retained in this office.

The drill contractor's logs were submitted in duplicate and one set is included with this report.

W. D. McMillan
Mining Engineer

WDM/mr
cc: 6 Ida-2940 Chron

RECEIVED
AUG 6 1956
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

RECEIVED
SEP 17 1956

AUGUST 3, 1956

MONTHLY NARRATIVE REPORT ON DRILL [illegible]
CONTRACT NO. Ide-6949
MONTH OF JULY

The following holes were completed during the month of July:

HOLE NO.	NEW CORE	CORE	% RECOV.	CORE PAID	DATE COMPLETED
123	499	96	75	96	7-24-56
124	554	27	96	27	7-23-56
125	630	20	45	20	7-24-56
126	568	40	63	40	7-25-56
127	483	127	55	70	7-26-56
136	553	54	34	25	7-06-56
137	552	45	86	45	7-16-56
138	471	136	68	136	7-19-56
139	599	28	55	28	7-23-56
140	489	126	68	126	7-22-56
150	576	29	53	29	7-22-56
151	508	19	58	19	7-22-56
152	609	13	67	13	7-22-56
153	568	28	50	28	7-23-56
173	177.5	109.5	61	66.5	7-12-56
174	478	120	73	87	7-13-56
176	485	125	58	72	7-09-56
177	503	42	54.5	42	7-20-56
178	566	10	73	10	7-25-56
179	535	43	67	40	7-26-56

In order to add incentive for better core recovery, on July 18, 1956, the drilling contract with Minerals Engineering was amended as follows:

1. All core footage was to be paid for. (Where as previously if core recovery fell below 80% only the core recovered was paid for.)
2. If core recovery falls below 80% the following run must be a five foot run and must remain five foot runs until 80% recovery is again achieved at which time a ten foot run may follow.

Upon request a certified copy of this amendment to the contract will be suplied you.

Due to the above conditions hole #13[illegible] was partially paid for on the old terms and partially on the new terms making the amount of core paid for more than the 34% recovery would indicate. Core in all holes drilled after July 18, 1956 is paid for 100%.

Great difficulty was experienced in coring the Westwater and recovery was so low even with five foot runs, (in many cases 50% and less), that it was decided to go to wet drilling and plug the Westwater thereby gaining 100% wet samples. This was only done in holes in which we had water return. Those holes in which circulation was lost were cored as usual even though recovery was low in some cases.

Included with this report are complete driller's logs of each hole. All radiometric logs are included plus the log of hole #164 which was excluded last month. Also included with this report is a copy of the recapitulation of the mineralization in all holes drilled to date.

Respectfully,

COLAMER CORPORATION

Gene K. Ealy

Gene K. Ealy,
Geologist

GKE:lj

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

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Month of July, 1956 Docket No. DMEA 4017 Contract No. Icm-5940
Operator's Name COLAMER CORPORATION Minerals URANIUM
Address GRANTS, NEW MEXICO
Contract Amount, $ 102,580.00 Government Participation: 75.% Amount, $ 76,935.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Core	3,568.25	10,431.05	13,999.30			
Bulldozing						
Crosscutting						
Drifting						
Drilling Plug Bit	10,239.58	11,415.45	21,655.03			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Inc. Allow @ 0.27 /ft.	3,243.51	4,970.84	8,214.35			
Assays	0	0	0			
(8) Contingencies (specify):						
TOTALS	17,051.34	26,817.34	43,868.68	17051.34	26,817.34	43,868.68
				+	491.22	491.22
					26,326.12	43,377.46

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 8-3-56 *Payee COLAMER CORPORATION

Per [signature] Title PRESIDENT

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of

$

Signature
(Authorized Certifying Officer)

Date Vou. No.
(See other side)

+ Previous Disallowance

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm E 946 in accordance with the terms of the contract.

Signature W D McMillan (# 12,7885) Title Min. Engr. Date 8/27/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Mauer Title Executive Officer Date SEP 12 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

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RECEIVED AUG 6 1956
Div. of Mineral Technology
BUREAU OF MINES
Denver Experiment Station
Denver, Colorado

UNITED STATES DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1956 Docket No. DMEA 4027 Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	ft.	3,578.25	1,334	13,999.30	4734	2.96		3.50
Churn								
Auger Pilot Hole	ft.	10,255.50	17,785	22,655.05	25,057.5	0.883		1.25
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Assays	3 ea.	0	0	0	0		40	3.50
TOTAL DISTRIBUTED COSTS		13,907.83	12,013	35,654.35				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc. Inc. Alloc @ 0.27 /ft.		9,243.51		8,234.35				
TOTAL COSTS		27,051.34		43,888.68				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 8/3/56 Operator [illegible]

Per [illegible] Title [illegible]

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

REMARKS:

(For Government use only)

W. W. McMillan

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

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HOLE NO. 5 123 AREA Sec. 10 - 13-9

FROM	TO	DESCRIPTION
0	25	Blow Sand
25	255	SH; m dk gy, sli - v arena
255	340	SS; lt gy, fn -m, all qtz; @ 290 -> m gy w/ s carb; @ 295 -> all qtz; @ 330 -> dk gy, w/ s carb
340	369	SH; lt gr gy; @ 363 -> ex arena
369	378	SS; m gy, fn - m
378	392	SH; lt gx br gy; @ 381 -> lt ol gy mod arena
392	465	SS; lt gr gy, fn - m; @ 396 -> m gy, m - c; @ 405 -- fn - m; @ 423 -> v arg; @ 429 -- sli arg BEGIN CORE @ 430 SS; m gy, m, v ark, A fn py, A spks gr cl; @ 435 -> m, c, cg, p cem; @ 441½ -> w cem; @ 445 -- m - c, sli arg, A blk cht w/ stks A py; @ 454 1' m, c, cg, v arg; @ 455 -> fn - m; @ 456 -> m - c, v ark, stks gr cl, p cem; @ 459 -> m, c, cg, no arg, v ark; @ 464 -> w cem w/ A calc
465	491	SH; gr gy w/ ls nods A py, A pet res; @ 466 -> all gr gy, no arena END CORE @ 471, no samples 471 - 495; driller reports SS @ 491; BEGIN CORE @ 495
491	595	SS: lt - m gy, m, v c, v ark, A py; @ 497 -> fn - m; @ 501 -> v arg w/ gr cl, A py, A calc, m - c, v c; @ 505 -- c, vc, p cem; @ 507 -> fn - m; @ 510 -> m - c, vc w/ stks gr cl; @ 513 -> f cem; @ 516 -> no arg; @ 520 -> fn - m, f cem; @ 525 -> po cem, mod arg, m - c - vc; @ 526 -> f cem; @ 530.5 -> w cem w/ A calc; @ 531 -> fn - m, po cem END CORE @ 535 - go blind Driller reports SS to BEGIN CORE * 580 SS, lt gr gy m - sli arg; @ 585 -> m - c; @ 586 -> v fn, mod arg Bottom at 595

Juice logs taken acct

HOLE NO. 124 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	40	Blow Sand
40	255	SH; m dk gy, sli - v arena
255	347	SS; lt gy, fn - m, all qtz; @ 335 --> dk gy w/ carb
347	381	SH; lt gr gy; @ 354 --> v arena; @ 360 --> no arena
381	410	SS; m gy, m; @ 395 --> m - c, A blk cht
410	426	SH; lt gr gy, sli arena; @ 417 --> lt ol gy; @ 423 --> lt gr gy
426	462	SS; m gy, fn - m, BEGIN CORE @ 435 SS, m gy, fn - m, A fn py; @ 439 --> mod arg w/ gr cl w/ s c gn; @ 441 --> v fn - fn, A fn py, mod arg; @ 443 -->p cem; @ 445 --> f cem, sli arg; @ 446 --> m - c, v ark; A blk cht; @ 447 --> m - c; @ 454 --> fn - m, A fn py; @ 461 --> v arg, m, c, cg
462	474	SH; gr gy, A pet res & py @ top End Core @ 462
474	484	SS
484	494	SH
494	565	SS; m gy, fn - m; @ 524 --> w cem w/ A calc; @ 525 --> f cem; @ 538 --> w cem w/ A calc; @ 545 --> f cem
565	581	SH Bottom at 581

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HOLE NO. 125 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	25	Blow Sand
25	260	SH; m gy - dk gy, sli - v arena
260	355	SS: lt gy, fn -m, all qtz; @ 340 --> dk gy w/ s carb
355	379	SH; lt gr gy, no arena; @ 367 --> lt cl gy; @ 370 --> v arena
379	400	SS; m gy, fn - m; @ 382 --> m - c, v ark, mod arg; @ 391 --> fn - m
400	467	SH; lt gr gy, mod arena, BEGIN CORE @ 464, SH, rd br
467	481	SS; lt gr gy, fn -m, mod arg; @ 470 --> m, c & cg, w cem; @ 481 -->
481	513	SH; lt gr gy, sli arena END CORE @ 484 go to wet samples
513	595	SS; m gy, fn - m; @ 520 --> m - c; @ 536 --> fn - m; @ 551 --> m - c
595	620	SH; lt gr gy, v arg intbdd w/ siltstone Bottom at 620

HOLE NO. 126 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	25	Blow Sand
25	260	SH; lt br gy, - dk gy, sli - ex arena
260	365	SS; lt - m gy, fn, mod arg; @ 325 --> all qtz; @ 355 --> dk gy w/ carb
365	395	SH; lt gr gy; @ 392 --> v arena
395	425	SS; lt gr gy, fn - m, mod arg; @ 398 --> no arg; @ 410 --> m - c, v ark; @ 419 --> fn - m; @ 422 --> m - c; @ 424 --> A calc
425	435	SH; lt gr gy, mod arena; BEGIN CORE @ 435
435	486	SS; m gy, fn - m, A fn diss py, A blk cht; @ 445 --> m - c, v ark, A blk cht; @ 449 --> fn - m; @ 466 --> mod arg, m, A fn - diss py; @ 470 --> w cem w/ A calc, A Pet Res & s coff? c - vc, v ark END CORE @ 475 go to wet samples - SS, w cem w/ A calc
486	488	SH
488	587	SS
587	589	SH
589	599	SS
599	607	Intbdd SS w/ SH Bottom at 608

HOLE NO. 135 AREA Sec. 10 13-9

FROM	TO	DESCRIPTION
0	25	Blow Sand
25	265	SH; m gy, dk gy, sli - v arena
265	335	SS; lt gy, fn- m, all qtz; @ 320 -> dk gy, w/ carb mod arg
335	374	SH; lt gr gy, sli arena; @ 350 -> w/ br gy
374	400	SS; m gy, fn - m, BEGIN CORE @ 378, SS, m gy, fn, fn diss py; @ 380 -> fn - m, v ark, A fn diss py; @ 384 -> m - c, & cg, v ark, s kaol, occ. blk cht; @ 390 -> fn - m; @ 392 -> fn, w/ gr cl gls; @ 399 -> w cem w/ A calc
400	416	SH; lt gr gy, w/ rd br, no arena; @ 411 -> mod arena - v arena
416	459	SS; m gy, v fn - fn, A fn diss py; @ 425 -> m, v ark, stks Pet Res, A py, A calc, s gr cl gls; @ 432 -> m - c, no cl; @ 458 -> v arg w/ A py A calc, s Pet Res.
459	473	SH; lt gr gy, END CORE @ 460 (Used 5 sacks aguagel & 4 sacks bran - no return circ. driller reports - SH to 473
473	576	SS, BEGIN CORE @ 520, SS, m gy, c - vc, v ark, s py, A blk cht; @ 527 -> (527 - 540, 1' recov.) m gy, A kaol; @ 540 -> lt gr gy, v fn - fn; @ 558 -> m - c, w/ A py & blk cht, v ark; @ 562 3" gr cl; @ 563 -> fn - m, m gy; @ 565 2" lim stn, w/ cem w/ A calc END CORE @ 565
576	610	SH & SS intbdd Bottom at 610

HOLE NO. 136 AREA Sec. 19, 12-9

FROM	TO	DESCRIPTION
0	30	Blow sand
30	255	SH; lt gr - dk gy, sli - v arena
255	335	SS; m gy, fn - m w/ s carb; @ 270-->lt gy all qtz; @ 250 -->m gy w/ s carb
335	378	SH; lt gr gy; @ 363 --> v arena
378	456	SS; m gy, m, v ark, w/ s calc; @ 384 --> m - c, END DRY PLUG @ 414 BEGIN CORE @ 414 SS, m gy, m - c & cg w cem w/ A calc s py. (From 414 to 434 4' recov.) @ 434 -> c - cg, f cem, v ark; @ 436 1' gr sh; @ 437 --> c - vc, A calc, v ark, w/ s fn - m, ((434 - 453, 0' recov.)
456	486	SH; lt gr gy, END CORE @ 453 --> wet samples SH; lt gr gy; @ 479 --> m gy, mod arena
486	587	SS; fn - m, BEGIN CORE @ 517 --> 0' recov. END CORE @ 527 --> wet samples SS, m gy fn - m; @ 557 --> m - c, A blk cht; @ 565, intbdd w/ gr SH; @ 577 --> m gy, fn - m; @ 580 --> v fn, w cem
587	607	SH; rd br; @ 595 --> gr gy Bottom at 607

HOLE NO. 127 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	15	Blow Sand
15	249	SH; lt gr - dk gy, sli - v arena
249	344	SS; lt gy, fn - m, all qtz; @ 320 -> m gy, w/ s carb; @ 338 -> ex arena
344	371	SH; lt gr gy, v arena; @ 347 -> mod arena
371	395	SS; m gy, fn - m, A blk cht; @ 383 -> m - c, v ark, 400 take to next SS (go go wet samples)
415	461	SS; BEGIN CORE @ 419 SS, m gy, fn - m @ 419.5, 3" gr SH; @ 422, 2" gr SH; @ 432 -> w/ gr cl gls; @ 437 s -> m - c & cg, ex arg w/ gr SH; @ 441.5 -> m - c, no arg; @ 445, 1' gr SH; @ 446 -> m - c, no arg; @ 450 -> v fn - fn w/ A calc, A Pet Res, A py, v arg; @ 451.5 -> fn, lt gr gy, mod arg; @ 455 -> v arg, v fn - fn, A Pet Res
461	494	SH; lt gr gy, w/ A Pet Res, w/ ls nods END CORE @ 464, (Go to wet samples) SH, lt gr gy to 494
494	594	SS; m gy fn - m, A blk cht v ark; @ 515 -> v arg; @ 522 -> m c, m gy, no arg; @537-> fn - m, A blk cht; @ 590 -> vfn - fn, v w cem
594	597	SH Bottom at 597

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HOLE NO. 138 AREA Sec. 10, 13-2

FROM	TO	DESCRIPTION
0	25	Blow Sand
25	255	SH; lt - dk gy, sli - v arena
255	350	SS; lt gr, fn - m all qtz; @ 335 -> dk gy w/ s carb
350	362	SH; lt gr gy; @ 356 -> w/ br gy
362	401	SS; m gy, fn - m, sli arg; @ 371 -> m - c; @ 387 -> v arg; @ 390 -> sli arg; @ 393 -> ex arg; @ 396 -> sli arg. BEGIN CORE @
401	431	SH, 420, lt gr gy w/ br gy; @ 425 -> m gy; @ 429 -> v arena
431	484	SS; lt gy, v fn - fn; @ 434 -> m - c & cg, w/ stks gr cl & A py in stks; @ 443 -> m no cl; @ 444 -> po cem; @ 449 -> f cem; @ 450 -> m - c & cg, v ark, w/ stks gr cl; @ 472 -> fn - m, A fn diss py; @ 464, 6" c - vc; @ 474 -> m - c, w/ gr cl stks; @ 479 -> m - c & cg, v ark, A calc, s kaol; @ 482 -> fn - m
484	501	SH; lt gr gy, w/ br gy, no arena END CORE @ 489 Go to blind drilling
501	595	SS; BEGIN CORE @ 540 SS, m gy, m - c, sli arg, v ark, A blk cnt; @ 551 -> fn; @ 565 -> w/ stks gr cl; @ 570 no cl v fn - fn; @ 590 -> m - c; @ 594 -> w/ stks gr cl, v w cem
595	607	SH; lt gr gy w/ rd br, v arena Bottom at 607

HOLE NO. 139 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	30	Blow Sand
30	260	SH; m gy - dk gy sli - v arena
260	351	SS; lt gr, fn - m, all φz; @ 340 -- dk gy w/ s carb
351	375	SH; lt gr gy, mod arena
375	400	SS; m gy, fn - m; @ 385 --> m - c, @ 388, 3' ex arg; @ 391 --> fn - m
400	433	SH; lt gr gy; @ 406 --> v arena, dk gy; @ 418 --> lt gr gy w/ br gy, no arena; @ 432 --> ex arena. BEGIN
433	458.5	CORE @ 434 SS, m gy, fn - m, w cem w/ A calc; @ 436 --> po cem; @ 439 --> v arg; @ 444 --> sli arg; @ 449 --> m - c, v ark, A blk cht, po cem; @ 450 --> m-- c & vc, A kaol, f cem
458.5	505	SH; lt gr gy, sli arena, END CORE @ 462 --> Wet samples; @ 490 --> m gy, mod arena
505	607	SS; m gy m - c, v ark; @ 510 --> fn -m, w cem w/ A calc
607	627	SH;lt gry; @ 609 --> lt gr gy w/ rd br Bottom at 627

HOLE NO. 140 AREA Sec. 10, 12-2

FROM	TO	DESCRIPTION
0	30	Blow Sand
30	250	SH; lt gy - dk gy, sli - v arena
250	340	SS; lt gy, fn - m, all qtz; @ 330 → dk gy w/ s carb
340	382	SH; lt gr gy
382	393	SS; m - c, m - gy, v ark
393	429	SH; lt gr gy; @ 395 → w/ br gy; @ 424 → v arena,
429	500	SS; BEGIN CORE @ 429, lt gy, v fn - fn; @ 431 → m gy; fn; @ 432 → m - c w/ A blk cht; @ 438 → w/ stks gr cl fn - m; @ 439 → po cem w/ stks gr cl; @ 443 → f cem w/ A py s stks gr cl, fn - m - c & vc; @ 451 → fn - m; @ 455, 3" dk gy w/ py; @ 464 → c - vk & Breccia, v - ex arg w/ gr SH; @ 470 → m - c & vc, A kaol, A calc, s py, sli arg; @ 475.5 → fn - m, w/ A kaol & calc; @ 480 → o cem; fn - m, sli arg; @ 495 → f cem, fn - m, w/ A calc
500	515	SH; m - dk gy, A Pet Res & py mod - v arena; @ 501 → lt gr w/ rd br, mod - v arena. END CORE @ 505 (Go blind)
515	552	SS
552	557	SH; Begin Core @ 555, SH, rd br, v arena
557	598	SS; lt gr gy, v fn - fn, fn, diss py @ 559 → w/ stks gr cl; @ 563 → m gy, m - c, v ark, A calc, mod arg; @ 566 → fn - m, po cem; @ 581 → ex arg, rd br w/ lt gr gy; @ 584 → m gy, mod arg, fn - m, A fn diss py
598	615	Siltstone, lt gr gy w/ rd br END CORE @ 605 Bottom at 615

HOLE NO. 150 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	25	BLOW SAND
25	255	SH; lt br gy - dk gy, sli - ex arena
255	337	SS; lt gr, fn - m, all qtz
337	367	SH; lt gr gy; @ 340 → w/ dk gy & s carb; @ 343 → lt gr gy no arena @ 358 → rd br, w/ stks lt gr gy, no arena; @ 367 → m gy, v arena
367	383	SS; fn - m, m gy BEGIN CORE @ 379 S, fn - m, w cem w/ A calc, END CORE @ 383 → wet samples
383	399	SH; rd br, v calc; @ 385 → lt gr gy; @ 389 → w/ rd br
399	429.5	S ; m gy, fn - m, BEGIN CORE @ 405 3" gr, SH → m gy, m - c, v ark, A blk cht; @ 407 → po cem; @ 422 → v fn - fn; @ 429 → m - c, A blk cht stks gr cl
429.5	455	SH; lt gr gy, v arena; @ 430 → no arena, w/ ls nods. END CORE @ 430 Go to wet samples
455	458	SS; m gy, fn - m
458	489	SH; lt gr gy, w/ lt gr sli mod arena
489	594	SS; m gy, fn - m; @ 512 → m - c; @ 552 → w cem w/ A calc; @ 555 → fn - m, f cem; @ 594 → w cem w/ A calc
594	605	Siltstone, lt gr gy w/ rd br intbdd w/ lt gr gy SH Bottom at 605

HOLE NO. 151 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	30	Blow sand, br gy
30	265	SH; lt gy to dk gy, sli - v arena
265	345	SS; lt gy, fn - m all qtz; @ 340 -> dk gy w/ s carb
345	399	SH; lt gr gy; @ 372 -> ex arena; @ 384 -> lt br gy mod arena; @ 396 -> lt gr gy, ex arena
399	419.5	SS; m gy fn - m BEGIN CORE @ 402, SS, lt gr, v fn - fn; @ 411 -> w cem w/ A calc, sli arg w/ gr SH,
415.5	476	SH; lt gr gy, sli arena END CORE @ 421 Go to wet samples
476	491	SS; m gy, fn - m
491	505	SH; lt gr gy w/ rd br
505	618	SS; m gy, fn - m; @ 530 -> m - c; @ 582 -> w cem w/ A calc; @ 590 -> f cem, m - c; @ 617 -> w cem w/ A calc
618	620	Siltstone, lt gr gy Bottom at 620

HOLE NO. 152 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	35	Blow Sand
35	260	SH; lt gy - dk gy, sli - v arena
260	350	SS; lt gy, fn - m, all qtz; @ 340 --> dk gy w/ s carb
350	460	SH; lt gr gy; @ 388 --> ex arena; @ 394 --> sli arena
460	495	SS; med gy, fn -m, v ark, w/ s py, s calc, A blk cht; @ 472 --> m - c; BEGIN CORE @ 482, cored 482 - 495 recovered 9'
		1', SS gr gy, m, mod ark
		3', m - f
		2½' m - c & cg, v ark, com gr cl gls, com blk cht
		2', v w cem w/ calc, com lg gr cl gls
		END CORE
495	505	SH
505	513	SS
513	622	SH
		Bottom at 622

HOLE NO. 153 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	25	Blow Sand
25	220	SH; lt br gy - dk gy, sli - v arena
220	313	SS; lt gr, fn - m, all qtz; @ 300 -> med gy, w/ s carb, mod arg
313	345	SH; gr gy, sli arena; @ 333 -> mod arena; @ 336 -> ex arena; @ 339 -- sli arena; @ 342 -> mod arena
345	371	SS; gr gy, fn - m, mod ark, v arg; @ 369 -> w/ rd br
371	417	SH; gr gy, v arena; @ 378 -> mod arena; @ 384 -- sli arena; @ 390 -> v arena; @ 393 -> w/ rd br, mod arena; @ 399 -> sli arena
417	452	SS; gr gy, fn, v arg, BEGIN CORE @ 419 SS, gr gy, fn, sli ark, f w cem w/ s gr cl; * 420½ -> m - c & cg, v ark; @ 424½ -> m - c; @ 427 -> p cem; @ 429 -> m - c & cg, f cem; @ 432 -> c & cg w/ cem gr cl gls; @ 435 1' SH, gr gy, ex arena; @ 438½ m, f cem, A blk cht; @ 446 -> p cem; @ 447 END CORE
452	468	SH
468	476	SS
476	484	SH
484	572	SS
572	588	SH; rd
		Bottom at 588

HOLE NO. 173 AREA Sec. 10, 13-2

FROM	TO	DESCRIPTION
0	45	Blow Sand
45	265	SH; m gy - dk gy, Sli - v arena
265	331	SS; m. gy, fn - m; @ 300 -> lt gy all qtz
331	382	SH; lt gr gy; @ 350 -> w/ rd br; @ 355 -> lt gr gy; @ 358 -> w/ br gy
382	427	SS; lt gr gy, fn - m, v ark; @ 395 -> m - c; @ 400 -> fn - m, @ 412 -> v arg; @ 415 -> ex arg, BEGIN CORE @ 419, SS; v fn, lt gr, ex arg w/ ls nods; @ 420 -> c - vc, ex arg; @ 421 -> fn - m, sli arg; @ 424 -> m gy, fn - m, mod arg
427	462	SH; lt gr gy, mot w/ m gy, calc sh, sli arena, END CORE @ 431 -> wet samples; @ 459 -> v arena
462	489	SS; fn - m, mod arg w/ lt gy sh
489	492.5	SH; lt gr gy
492.5	496.5	SS; fn - m, m gy BEGIN CORE @ 493.5 SS; fn - m, m gy v ark; @ 496 -> w cem w/ A calc, com Pet Res
496.5	536	SH; lt gr gy, no arena; @ 508 -> ex arena
536	597	SS; m gy, v fn, mod arg; @542 -> mod br gy w/ m gy, m, c, & cg, lim sta so hem sta, A calc; @ 565 -> mod br gy, A lim sta, m - c, @ 567 -> w cem, lt gy, w/ A calc; @ 568.5 -> mod, br gy, fn- m, @ 571 -> lt gy, w cem w/ A calc; @ 586 -> mot rd br - lt gy, sli arg, A calc END CORE @ 590 (Go to blind drilling - driller reports SS to 597
597	607	SH Bottom at 607

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HOLE NO. 174 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	45	Blow Sand
45	245	SH; m gy, dk gy, sli - v arena
245	322	SS; br gy, fn - m; @ 250 --> lt gy, fn, s lim stn; @ 265 --> lt gy, all qtz fn - m
322	366	SH; lt gr gy, sli arena; @ 327, 1' SS; @ 340 --> w/ lt gy
366	400	SS; fn - m, m gy, BEGIN CORE @ 368; fn - m, m gy, ex arg; @ 370 --> mod arg, w/ A calc & A kaol; @ 373 --> m, - c, v po cem; @ 381 --> m, c, & cg, v ark, A blk cht, int bdd w/ fn - m; @ 383 --> fn - m A fn diss py; @ 384 --> m, w com w/ A calc, (384 - 396 - 1' recov.) @ 396 --> v fn - fn; @ 398 --> w/ A kaol
400	407	SH; lt gr gy, v arena; @ 403.6 --> sli arena
407	415	SS; m, m gy, v ark (3" recov.)
415	500	SH; lt gy, mod arena, END CORE @ 416 ost circulation Driller reports SH to 500 BEGIN CORE
500	592	SS; lt gy fn - m, v arg; @ 505 --> lt gy w/ rd br, sli arg, m; @ 506 --> lt br m, lim stn; @ 517 --> m, c, & cg, m br; @ 518 --> w cem w/ A calc; @ 519 6" SH, rd br --> SS, rd br, m - c, mod arg, w/ A blk cht, A calc; @ 524 --> po cem, mod rd br, fn - m; @ 531 --> lt br gy, fn - m po cem, A py; @ 540 --> lt gy w/ lt rd, w cem w/ A calc; @ 541 --> lt rd fn - m, A kaol; @ 546 --> lt br gy, fn - m; @ 548 --> lt gy w/ lt rd br, w cem w/ A calc; @ 551 --> lt br gy, po cem, fn - m; @ 554 --> m - c; @ 560 --> lt br gy, fn - m, f cem w/ stks SH, lt gr gy w/ lt rd; @ 568 --> m, END CORE @ 572 (Go to wet samples) SS, fn - m, rd br; @ 578 --> lt gr gy w/ lt rd v arg,
592	598	SH; rd br w/ lt gr gy Bottom at 598

HOLE NO. 176 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	45	Blow Sand
45	205	SH; lt br - dk gy, sli - ex arena
205	320	SS; lt gy, fn - m, all qtz (take to abt 398, 100 below green sh) go to driller reports @ 230
320	340	SH
340	405	SS
405	444	SH; BEGIN CORE @ 425, SH, lt gy; @ 434 --> ex arena; @ 441 --> rd br
444	467	SS; fn - m, lt gy gy, w/ cem w/ A calc; @ 445 --> m gy, m - c, A calc & kaol, w/ s py; @ 450 --> lt gy, fn - m w/ stks c - vc, A calc; @ 461 --> po cem, A py, in stks, fn - m; @ 464 --> w cem w/ A calc, c - vc, & cg
467	480	SH; lt gr gy w/ rd br; @ 479.5 --> ex arena w/ s Pet Res END CORE @ 480
480	575	SS; (no samples, lost circulation - driller reports BEGIN CORE @ 500 SS, dk br gy, lim stn, s hem stn, fn - m, A calc; @ 508.5 --> m - c; @ 510 --> m gy, m - c, A calc, po cem, s cg v ark, s coff. (510 - 530, 2' recov; @ 530 --> m - c, lt gy w/ lt rd br; @ 547 --> mod rd br, fn-m; @ 554 --> m gy w/ lt rd, A py, m - c; @ 566 --> mod rd br, fn - m, po cem; @ 568 --> w cem w/ A calc. END CORE @ 570 (Go to blind drilling)
575	610	SS-SH @ 580 --> SH Bottom at 610

HOLE NO. 177 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	40	Blow sand
40	193	SH; dk gy - m gy, sli - ex arena
193	290	SS; lt gy, fn, m, all qtz
290	330	SH; lt gr gy; @ 324 --> lt br gy; @ 333 --> m, c, cg, v ark; @ 336, 2' ex arg; @ 339 --> fn - m, sli arg; @ 351 --> m gy, m gn; @ 357 --> m - c v ark, A calc; @ 363 --> fn - m; @ 366 --> m - c; @ 378 --> v fn - fn; BEGIN CORE @ 381; SS; lt gr, m -c com wh cl; @ 392 --> w cem w/ A calc; @ 394 w/ A gr cl; @ 396 --> f cem w/ s gr cl; @ 398 --> w cem w/ A calc & gr cl
400	410	SH; lt gr gy, no arena; @ 404 --> w/ lt br gy & rd br, mod - v arena; @ 408 --> ex arena; lt gr gy
410	419	SS; lt gy, fn - m; @ 415 --> m, occ lt gr gy; @ 418 --> w cem w/ A calc
419	474	SH; lt gr gy w/ rd br, v arena Resume plug @ 423; SH; gr gy & rd br
474	535	SS; some gr gy & rd br, m - c, s cht
535	545	SH; rd br, v arena Bottom at 545

HOLE NO. 178 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	40	Blow Sand
40	55	SS; lt br gy, m - v arg
55	195	SH; dk gy, v arena
195	275	SS; lt ~~gx~~ m gy, fn, all qtz
275	314	SH; lt gr gy; @ 302 → mod arena; @ 308 → br gy; @ 311 → ex arena
314	371	SS; lt gr gy, m, v ark, v arg; @ 326 → m - c 7 cg, 335 → m & c; @ 341 → m, v arg; @ 347 → m - c mod arg; @ 362 → m gy, m - c & cg
371	392	SH; lt gr gy, no arena; @ 383 → w/ br gy v arena; @ 385 → ex arena
392	400	BEGIN CORE @ 932, SS, lt gy, ex arg, v fn -fn; @ 397 → no arg, m, w cem w/ A calc
400	417	SH; lt gr gy; @ 401 → rd br END CORE @ 402 go to wet samples.
417	457	SS; fn - m, m gy, v w cem
457	484	SH; lt gr gy w/ m gy
484	573	SS; rd br w/ lt or br; @ 573 w cem w/ A calc
573	576	

Bottom at 576

HOLE NO. 179 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	80	Blow Sand
80	185	SH; m gy - dk gy - sli - v arena
185	275	SS; lt gy, fn - m all qtz; @ 270 -> dk gy, v arg w/ A carb.
275	314	SH; lt gr gy; @ 308 -> v arena
314	332	SS; m gy, m - c
332	374	SH; lt ol gy; @ 344 -> ex arena; @ 347 -> mod arena; @ 350 -> no arena; @ 369 -> v arena
374	418	SS; m gy, fn - m, BEGIN CORE @ 380 SS, m gy, fn, A fn py; @ 381 -> m - c, v arg; @ 382 -> v fn - fn; @ 385 -> m, c, cg, v ark; @ 387 -> v fn - fn, mod arg; @ 391 -> fn - m, A calc; @ 393 18" gr SH w/ br SH, & SS stks A pet res, A py; @ 394 -> m rd br, m gn, A hem; @ 395 -> w/ lt or gy; @396 -> or gy; @ 400 -> rd br; @ 405 -> m, c, cg; @ 411 -> w/ or gy; @ 413 -> fn -m, or gy; @ 415 -> fn - vc w cem w/ A calc, lt gy
418	435	SH; lt gr gy w/ br gy, v arena END CORE @ 420
435	445	SS; m gy, fn - m
445	470	SH; lt gr gy w/ rd br
470	565	SS; rd br @ 500 -> or gy; @ 525 5' w cem w/ A calc; @ 530 -> rd br, fn m; @ 563 -> w cem w/ A calc
565	575	SH Bottom at 575

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SEP 10 1956

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

[redacted]

FINAL DISTRIBUTION
MADE SEP 7 1956

Date: [redacted]
Payee's Reference: [redacted]

DMEA-4017

[redacted]

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$	[redacted]
Difference	$	[redacted]
Amount Approved	$	[redacted]

The reason for the difference was due to:

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

August 29, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 4017 (Uranium) Contract Idm-E940, Colamer Corporation (Sec. 10, T13N, R9W) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of June, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended on the following basis, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

The cost of 1/2 hour stand-by time in hole 120 and 1/2 hour in hole 121 is allowed in addition to the 10 hours recommended in the Engineer's Report for holes 162, 163 and 172.

Disallowance, Non-Core drilling:

Amount reported by Operator, 6,782 feet at total cost of- - - - - - - - - - - - - - - -	-$5,725.15
The allowable cost as determined from driller's logs and drilling subcontract, 6,782 ft. at total cost of- - - - - - - - - - -	5,535.53
Amount to be disallowed	$ 189.62

Reconciliation with Amount Reported by the Operator on Form MF-104 for June, 1956

Total amount reported on Form MF-104 for June, 1956 - -	$ 12,290.36
Amount to be disallowed- - - - - - - - - - - - - - - - - - - -	189.62
Total accepted cost- -	$ 12,100.74
Government participation at 75 percent- - - - - - - - - -	$ 9,075.55

Note: Actual core drilling performed during the period was 1,634.5 feet. In accordance with the provisions of the drilling subcontract payment is made only for the footage of core actually recovered in those holes where core recovery is less than 80 percent. This results in a lower average cost per foot for the total core drilling performed. The Operator has correctly reported the core footage and cost on Forms MF-104 and MF-104A.

Remarks

Date of Report - - - - - - - - - - - - - - - - - July 9, 1956
Date Received in Field Office- - - - - - - - July 11, 1956
Date Received in Region Office- - - - - - August 28, 1956
Report held in field office pending receipt of logs and other data from Operator

W. M. TRAVER

W. M. Traver

Enclosures

JDC:jy
cc: MF-104 File E940
Sec. Op. Comm. (2)
Shaw (2)
Townsend w/copy engr's report
Chron.

DMEA
Date Rec'd.

AUG 28 1956

BUREAU OF MINES
Denver, Colorado

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
August 27, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: W. D. McMillan

Subject: DMEA 4017 (Uranium) Contract Idm-3940, Colamar Corporation, Phillis, Fannie, Jean, and Beata Claim Groups, Sec. 10, T. 13 N., R. 9 W., NMPM, McKinley County, New Mexico -- Progress report for June, 1956

Progress was checked on July 10, 1956, accompanied by Jean Baly, geologist for Colamar Corporation.

The accompanying table gives data on the holes drilled during June, 1956 as shown by drilling contractor's logs.

Plug Drilling

Hole No.		Pd. at $0.70	Pd. at $0.95	Feet	Feet	% Recovered	Pd. at $3.50	Total Depth	Remarks
6/4	120	375	-	375	100	96	100	475	Slight Radiometric Anomalies
6/6	121	371	-	371	74	71	53	445	"
6/8	122	295	-	295	120	69	83	415	<0.02% eU_3O_8
6/21	148	400	80	480	120	53	63	600	3.0' - 0.083 eU_3O_8
6/29	149	-	474	474	126	68	86	600	<0.013 "
6/22	159	-	470	470	132	55	73	602	1.0' - 0.073 "
6/21	160	-	510	510	105	87	105	615	<0.023 "
6/14	161	499	-	499	118	69	81.5	617	3.0' - 0.040 "
6/18	162	508	-	508	92	49	45	600	2.5' - 0.113 "
6/11	163	485	-	485	98	81	98	583	none
6/17	164	441	21	462	123	88	123	585	No return from AEC
6/7	165	428.5	-	428.5	111	90	111	539.5	1.5' - 0.043 eU_3O_8
6/29	166	355	62.5	417.5	97.5	72	70	515	1.5' - 0.033 "
6/28	172	-	549	549	91	55	50	640	<0.023 "
6/30	175	-	458	458	127	67	85	585	1.0' - 0.09 "
		4157.5	2624.5	6782.0	1634.5		1286.5	8416.5	
		.70	.95				$3.50		
		$2910.25	$2493.28	$5403.53			$4292.75		

Note: Drilling contract was amended June 15, 1956 increasing cost of plug drilling from $0.70 to $0.95 a foot.

The drilling contractor's logs agree with total footage claimed by the operator in the narrative report; 6782 feet non-core drilling, 1634.5 feet core drilling; total drilling for June 1956, 8416.5 feet.

Operator reported 1634.5 feet of core drilling on Form MF-104, but only paid for 1286.5 feet at $3.50 a foot, or $4502.75 in accordance with his agreement with the drillers.

Operator performed 4157.5 feet of non-core drilling at $0.70, costing $2910.25 and 2624.5 feet at $0.95 a foot costing $2493.28 or a total of $5403.53. He charged $5785.15 for that item on Form MF-104.

Driller's logs show a total of 10 hours standby time used at holes 162, 163 and 172 for which $12.00 an hour is charged and this is allowed because Idm-2940 contract permitted a non-core drilling cost of $1.25 a foot.

Approved costs are as follows:

4157.5 feet of non-core drilling at $0.70 a foot	$2910.25
2624.5 feet of non-core drilling at $0.95 a foot	2493.28
1286.5 feet of core drilling at $3.50 a foot	4502.75
10 hours of standby time at $12.00/hr.	120.00
8416.5 feet at $0.27 for incidental costs	[illegible]
	$12,[illegible]

It is recommended that 75 percent of the approved total costs, amounting to $9066.56 be approved for payment.

A certified copy of Colmar's amended sub-contract with Mineral Engineering Company is on file in your office.

Radiometric logs and drilling contractor's logs in duplicate were submitted by the applicant.

One set of logs are attached with this report.

W. B. McMillan
Mining Engineer

WBM/mr
cc: 6
Idm-2940
Chron

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

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SEP 10 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1956 Docket No. DMEA 4017 Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible], NEW MEXICO
Contract Amount, $ 102,580.00 Government Participation: 75 % Amount, $ 76,935.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Core	4,292.75	6,138.30	10,431.05			
Bulldozing						
Crosscutting						
Drifting						
Drilling Plus Lit	5,725.15	5,690.30	11,415.45			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Inc. Allwo 0.27 /ft.	2,272.46	2,698.38	4,970.84			
Assays	None	None	None			
(8) Contingencies (specify):						
TOTALS	12,290.36	14,526.98	26,817.34	12,100.74	14,526.98	26,627.72
				1/-	301.60	301.60

I certify that the above bill is correct and just and that payment therefor has not been received.

Date July 9, 1956 *Payee [illegible] CORPORATION

Per [illegible] Title [illegible]

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:
14,225.38 26,326.12
$ 9075.55

Signature [illegible]
(Authorized Certifying Officer)

Date 9/4/56 Vou. No. 57-26

(See other side)

1 Previous Disallowance

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E 94P in accordance with the terms of the contract.

Signature [illegible] Title Min. Engr Date 7/18/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date AUG 29 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
SEP 10 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1956 Docket No. DMEA 4017 Contract No. 10a-7040
Operator's Name COLAMER CORPORATION Minerals URANIUM
Address GRANTS, NEW MEXICO

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	4,292.75	~~1634.5~~ 1226.5	10,491.05	3,499.5	2.98	11,200	3.50
Churn								
~~Rock~~ Plug Bit	Ft.	~~5,725.15~~ 5,403.53	6732 ✓	11,415.45	14,911	0.765	39,200	1.25
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Assays	ea	0	0	0	0	3.50	40	3.50
TOTAL DISTRIBUTED COSTS		10,017.90		21,846.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Inc. Allow. @ 0.27 /ft.		2,272.46	8416.5	4,970.84				
TOTAL COSTS		12,290.36		25,817.34				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date July 9, 1956 Operator COLAMER CORPORATION

Per [signature] Title GEOLOGIST

→ NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man-days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

July 9, 1956

MONTHLY NARRATIVE REPORT ON DRILL BOREST 4017
CONTRACT NO. Idm-5940
Month of June

The following holes were completed during the month of June:

HOLE NO.	NON CORE	CORE	% RECOV.	CORE PAID	DATE COMPLETED
120	375	100	96	100	6-4-1956
121	371	74	71	53	6-6-56
122	295	120	69	83	6-8-56
148	480	120	53	63	6-21-56
149	474	126	68	86	6-23-56
159	470	132	55	73	6-22-56
160	510	105	87	105	6-21-56
161	499	118	69	81.5	6-14-56
162	508	92	49	45	6-18-56
163	485	98	81	98	6-11-56
164	462	123	88	123	6-17-56
165	428.5	111	90	111	6-07-56
166	417.5	97.5	72	70	6-29-56
172	549	91	55	50	6-28-56
175	458	127	67	85	6-30-56
	6782	1634.5		1226.5	

This month drilling shows nine holes in which the core recovery has fallen below 80% as can be seen from the drillers logs. Practically all coring is being done in the sand units and most non core drilling in the shale units. The sands in this area are extremely soft and in many cases the core has simply been washed away. However, when this occurs we have the drillers recover the washed out core by means of water circulation and wet samples are recovered for this interval, so that we can still obtain information in this interval of drilling.

Included with this report are complete drillers logs of each hole. All radiometric logs are included with the exception of hole No. 164 which at this date has not been returned to us by the A.E.C. This will be forwarded immediately to your offices as soon as we can obtain a copy. Also included with this report are six copies of a recapitulation of the mineralization found in all holes drilled to date with the exception of hole No. 164.

Respectfully,

COLORADO CORPORATION

KENNETH BERTZ

KB:lj

HOLE NO. 120 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	18	Blow Sand
18	78	SS; lt br, fn - m
78	126	SH; m gy, mod arena
126	204	SS; lt br, fn - m @ 150,,3' dk gy, v arg A carb; @ 201 -> m - c, s carb, sli arg
204	210	SH; lt gr gy, v arena @ 207 -> ex arena
210	225	SS; lt or bn, v arg m - c
225	297	SH; lt gr gy, w/ br gy, sli arena @ 243 -> ex arena @ 245 -> mod arena @ 267 sli arena @ 279 -> lt ol gy, @ 294 -> v arena
297	346½	SS; br gy, fn - m, ark, Begin Core @ 300 @ 300 rd br, fine - m, A hem stn @ 314½ -> w/ stks lt gr gy, fn - v fn @ 317 -> m - c, w/ stks v fn m gy, A hem stn @ 324½ 3" gr sh, w/ pet res @ 325 -> m, po cem, A hem @ 326 -> f cem @ 335 -> fn w/ stks m - c, A hem @ 344 -> lt gr gy, w/ rd br, m - c, A calc, well cem, A hem
346½	361	SH; lt gr gy, w/ rd br, sli arena, END CORE @ 350 All samples lost, drillers report
361	376	Sand
376	401	SH
401	455	SS: Begin Core @ 425, SS, fn - m, lt rd br w/gr cl stks, @ 431 -> v fn - fn, m rd br, A hem stn @ 437 -> lt gy, fn - m, A kaol, @ 438 -> m rd br, m - c w/ s gr cl, @ 441 -> no cl @ 444 -> po cem, fn - m @ 445 -> w cem w/ s gr cl gls, @ 447½ -> dk gr gy, w/ rd br, fn - m, sli arg @ 449 -> rd br, fn -m
455	475	SH; rd br, w/ lt gr gy @ 457½ -> v ex arena; @ 467½ -> no arena Bottom at 475

HOLE NO. 121 AREA Sec. 10 12-9

FROM	TO	DESCRIPTION
0	15	Blow sand
15	68	SS; lt br, fn - m, mod arg
68	111	SH; dk gy, mod arena
111	194	SS; lt br gy, fn - m, All7 -> lt gy all qtz; @138 -> m gy, scar ; @ 147 -> lt gy
194	207	SH; lt gr gy
207	219	SS; lt gr gy, m, v arg
219	286	SH; lt gr gy; @ 255 -> w/ br gy; @ 267 -> ex arena; @ 270 -> sli arena; @282 -> rd br, Begin Core; @ 285
286	330	SS; br gy, w/ rd br, c- cg A hem; @ 295 1' SH rd br w/ gr gy; @296 -> lt gr gy, fn - m, com gr cl; @ 300 -> ck gr gy w/ A gr cl, ex arg; @ 307 -> br gy, A hem, c - v c; @ 310 -> rd br, c - v c, A hem, com spks wh cl; @ 326 -> br gy w/ s lim; @ 326 -> rd br, A hem; @ 328½ 2" gr cl gl w/ hem halo
330	334	SH; lt gr gy w/ rd br
334	351	SS; m - c, br gy v ark, A kaol END CORE @ 338 (Wet Samples) SS, br gy, m, v ark
351	398	SH; lt gr gy w/ rd br
398	443	SS; br gy, fn - m; Begin Core @ 410, SS; lt rd br, fn, A hem spks, A kaol 413 - 415, 8" recov, SS; lt rd br, fn w/ stks gr cl, 415 - 423, 0' recov, SS, c - cg, v arg, A py, s hem, pet res Shows fracturing; 426 - 431 o' recov END CORE; @ 431 (dropped rods recovered, go to wet samples) SS, rd br, fn - m, w/ s gr cl
443	445	SH; lt gr gy w/ rd br Bottom at 445

550 CPS at 377

HOLE NO. 122 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	33	Blow sand
33	45	SS; m br, fn O m, sli arg
45	75	SH; dk gy, mod arena
75	190	SS; lt gy, fn O m, all qtz; @ 93 → m gy, s carb; Samples lost; @ 100 drillers report Jmbb @ 190
190	307	SH; @ 260 3' ex arena, Begin Core @ 270 SH; lt gr gy; @ 280 → w/br gy, mod arena @ 290 a 6" highly fractured, → lt rd br, v arena; @ 292½ → lt gr gy w/rd br v arena; @ 300 → ex arena; @ 303 stk of pet res, A py
307	345	SS; m gy, fn - m, p cem, (307-314) 0' recov. driller reports; @ 314 → m gy, fn, w cem w/A calc & A py; @ 326 1' SH, lt gr gy w/s lt rd; @ 327 → v fn, lt gr gy, A py, s coff, mod - v arg; @ 331 → lt or br, fn - m, A lim stn, po cem; @ 335 → w cem w/A calc
345	348½	SH; lt gr gy w/ lt rd br, v arena
348½	380	SS; lt br gy, m - c, A lim stn; @ 359 → rd br, w/br gy, lim & hem stn, m - c, A calc; @ 374 → w cem w/A calc; @ 375½ → silt. stone, ex calc, w/ gr cl gls
380	415	SH; rd br w/lt gr gy, sli arena; @ 386 → ex arena; End Core @ 390 (Drilling blind, driller reports SH to Bottom Bottom at 415

HOLE NO. 148 AREA Sec. 10k 12-2

FROM	TO	DESCRIPTION
0	25	Blow Sand
25	255	SH; lt gy, mod arena --> dk gy, sli arena
255	347	SS; lt gy, fn - m; @ 265 --> m gy w/ s carb; @ 270 --> lt gy, all qtz; @ 335 --> dk gy w/ carb
347	387	SH; lt gr gy; @ 366 --> mod arena; @ 375 --> w/ br gy
387	424	SS; lt gr gy, m, BEGIN CORE @ 400 --> m gy, m - c, v ark, A calc; @ 401 --> w/ gr cl gls; @ 404 6" gr SH; @ 404½ --> lt gr gy, v fn - fn, no cl; @ 406 --> m gy, m - c, mod arg, v ark, A fn diss py, occ blk spks; @ 419½ --> lt gy m - c & cg, no cem; @ 421 --> dk gr gy, w cem w/ A calc A Pet Res
424	482	SH; lt gr gy, no arena, END CORE @ 425 (lost all samples, driller tryed for 3 hrs. to get water back - reports - SH to 482)
482	570½	SS; BEGIN CORE @ 490, m gy, c & cg, po cem, v ark, A py, com spks gr cl, s kaol, com blk cht; @ 502 --> w cem w/ A calc; @ 508 --> m & c; @ 510 --> f cem, no calc, m, fn diss py; @ 517 --> m & c; @ 523 --> c & ct, v arg, lt gr gy, A py; @ 524 --> mod arg, m gy, po cem; @ 543 --> m occ gr cl; @ 567 --> fn - m, w/ stks c - cg, sli arg, fn diss py
570½	584	SH; lt gr gy, v arena, v calc; @ 578 --> lt gr gy, w/ rd br mod arg; @ 591 --> lt gr gy, v arena
584	600	SS; c - v c, v arg, END CORE @ 585 Driller reports SS to 600 Bottom at 600

HOLE NO. 142 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	30	Blow sand
30	295	SH; ~~xxxxxxxxxx~~ m gy - dk gy, sli - mod arena; @ 250 --> ex arena
295	341	SS; lt gy, fn - m, all qtz
341	396	SH; lt gr gy; @ 392 --> rd br
396	410	SS; lt gr gy, m
410	425	SH; m gy, intbdd w/SS ribs Begin Core @ 425
425	435	SS; m gy, m - c, v ark, A Kaol, A calc, stks A py
435	492	SH; lt gr gy, sli arena; @ 438 --> v arena; @ 440 --> sli arena w/ s Pet Res; @ 443 --> no arena, dk gy, END CORE @ 446 go to wet samples, 452, 2' SS; @ 464 1' SS
492	580	SS; fn - m, b gy, BEGIN CORE @ 495, SS, m gy, m - c, v ark, A calc, po cem; @ 500½ --> m, f cem, v ark, A blk cht, A calc; @ 508 --> fn - m, v po cem; @ 519 --> m, A calc, f cem, A blk cht; @ 521 -- fn - m, m gy w lt br gy, v po cem; @ 522 --> m f cem, A calc, A blk cht; @ 527 --> po cem; @ 536 --> c - vc, v ark, v arg w/ gr cl, A py, A kaol; @ 544 --> v fn, fn diss py no cl; @ 545½ --> fn - m, po cem, sli lim sta; @ 555 --> lt gr gy, fn - m, sli arg, po cem; @ 575 --> w cem w/ A calc s pet res
580	600	SH; lt gr gy, v arena; @ 595 --> rd br mod arena Bottom at 600

HOLE NO. 159 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	25	Blow sand
25	185	SH; lt br gy, mod arena; @ 40 --> m gy; @ 130 -->dk gy
185	344	SS; m gy w/ s carb, sli arg; @ 260 -->lt gy, all qtz, fn - m
344	399	SH; lt gr gy, v arena; @ 359 --> sli arena; @ 391 --> w/ br gy
399	423	SS; lt gr gy, fn - m, BEGIN CORE @ 400 v fn - fn, m gy w/ br gy; @ 403 --> c - vc w/ s gr cl; @ 408 --> fn, w/ br gy; @ 409 --> v fn - fn, v arg
423	445	SH; m gy, w/ br gy, v arena, END CORE @ 430
445	474	SS; From 466 --> 468, SH then SS
474	498	SH
498	599	SS; BEGIN CORE @ 500 m - lt gry, c - v c, f cem v ark, A kaol, A cht, A py; @ 506 --> m & c, f - w cem, lt gy; @ 510 --> m gy, f cem, c 7 v c, w/ gr cl spks 7 gls; @ 514 --> m - v c; @ 525 --> m, po cem, sli arg; @ 537 --> f cem, mod arg; @ 541 -->m- c, f cem, 545 to 555 o' recov; @ 555 --> lt gy, w cem w/ A calc, blk sh, gls; @ 556 --> c - ct, v arg w/ gr sh; @ 557 --> v fn - fn, w/ s gr cl gls; @ 575 --> fn- m, w cem; @ 585 --> lt gr gy, m, v ark
599	602	SH; lt gr gy w/ rd br, intbdd w/ v fn SS Bottom at 602

HOLE NO. 160 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	30	Blow sand
30	195	SH; m gy, mod arena; @ 95 → lt gy, no arena; @ 130 → dk gy
195	215	SS; m gy, fn, v arg
215	265	SH, m gy, mod arena
265	342	SS; m gy, fn - m, s carb; @ 280 → lt gy, mod arg; @ 305 → all qtz; @ 335 w/s carb
342	388	SH; lt gr gy; @ 370 → mod arena ; @ 382 → lt gr gy w/br gy
388	394	SS; fn - m, lt gr gy, v arg
394	400	SH; lt gr gy
400	424½	SS; m gy, m - c, Begin Core @ 412, SS, m gy, fn - m, p cem; @ 420 → v fn - fn, f cem
424½	460	SH; lt gr gy, v arena; @ 425 → sli arena End Core @ 430 (go to wet samples)
460	467	SS; fn - m, m gy
467	500	SH; lt gr gy, v arena; @ 485 → sli arena
500	605½	SS; lt gr gy, fn - m, mod arg Begin Core @ 505 SS, m gy, m, v ark, fn diss py; @ 509½ ⇒ f cem, m - c, sli arg; @ 511 → p cem, fn ½ - m,; @ 512 → f cem, m - c, v ark, w/s cg, A fine diss py; @ 513 → lt gr gy, fn - m, A fn diss py; @ 516½ → m gy, m - c, sli arg, p cem; @ 520 → c & v c, f cem, w/stks gr cl, mod - v arg; @ 522 → v arg; @ 525 → m - c, mod arg, p cem, w/fn diss py; @ 427½ 6" lt gy, m, w cem w/A calc, A py, A bk spks; @ 428 → m gy, m - c, p cem, w/s py; @ 534 → fn - m, f cem w/stks gr cl @ 535½ → m, f cem, A py; @ 537 → v c w/ s cg, A py, v ark; @ 541 ~~xx~~ 1' lt gy, fn - m, w cem w/A calc; @ 542 → m gy, fn - m, fn diss py, p cem; @ 549 → f cem; @ 553 → m - c, w/stks gr cl, w/s py; @ 554 → lt gy, m - c, A calc, A py; @ 555 → lt gr gy, fn - v fn, w cem; @ 557 → p cem; @ 559 → lt gy, fn - m, A calc, w cem, End Core; @ 562 → wet samples, lt gy, fn - m; @ 577 → m gy, fn - m, Begin Core @ 585, m gy, m - c, mod arg; @ 586 → fn - m, A py, A bk cht; @ 588 00 fn, v ark; @ 590 → m - c, A py, A bk cht; @ 592 → fn - m; @ 605 2" ls, A pet res
605½	611	SH; lt gr gy, mod arena; @ 607 → intbdd SH & SS, v fn; @ 609 → SH, v arg
611	615	SS, m gy, v fn, w/py Bottom at 615

HOLE NO. 161 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	25	Blow sand
25	40	SS; lt br gy, fn - m, sli arg
40	90	SH; dk gy, mod arena
90	125	SS; m gy, fn - m, v arg
125	255	SH; dk gy, no arena; @ 190 → ex arena; @ 220 → sli arena
255	343	SS; lt gy, all qtz
343	396	SH; lt gr gy, mod arena; @ 364 → v arena; @ 367 → sli arena; @ 379 → v arena; @ 382 → sli arena w/br gy
396	435½	SS; m gy, fn, Begin Core @ 400, lt gr gy, fn, sli arg w/s gr cl gls; @ 415 → fn - m, m gy, mod arg, p cem; @ 420 → m - c, ex arg, A py; @ 422, 1½' gr SH; @ 423½ → fn, sli arg, fn diss py; @ 434½ → w cem w/A calc
435½	475	SH; lt gr gy w/s rd br, End Core @ 443 Lost all circulation, Driller used four sacks bran, reports)
475	482	SS
482	500	SH
500	605	SS; begin Core @ 510, SS, fn O m, m gy, p cem; @ 512½ → f cem; @ 514 → fn, A fn diss py; @ 522 → m - c, lt gy, v arg; @ 525 → m gy, fn - m, p cem; @ 532 → lt gy, m - c, v ark, sli arg; @ 544 → p cem; @ 546½ 6" w cem w/A calc fn - m; @ 549 → v arg; @ 550 → m - c w/A Kaol; @ 554 1' gr SH; @ 555 → m, v art, m gy, v ark w/stks gr SH, A py, in SH; @ 571 → m gy, fn - m, A fn diss py; @ 575 → intbdd m SS w/lt gr gy SH, End Cor @ 585 SS, fn - m, sli arg, fn diss py; @ 603 → w cem w/A calc
605	617	SH; lt gr gy, v arena (siltstone) Bottom at 617

HOLE NO. 162 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	25	Blow sand
25	180	SH; lt gy; @ 45 --> dk gy; @ 85 --> lt br, v arena; @ 100 --> m gy; @ 125 --> dk gy, sli arena
180	335	SS; m gy, fn, v arg; @ 200 --> ox arg; @ 220 --> sli arg; @ 255 --> lt gy fn - m, all qtz
335	368	SH; lt gr gy; @ 353 --> mod arena; @ 359 --> sli arena
368	377	SS; lt gr gy, fn - m
377	395	SH; lt gr gy, w/ br gy, sli arena @ 392 --> v arena
395	432½	SS; m gy m - c, v ark; @ 401 --> c; @ 410 --> fn - m; @ 419 --> m - c, BEGIN CORE @ 451, SS, m - c, w/ gr cl, w cem, w/ A calc
432½	512	SH; lt gr gy END CORE @ 433 (go to wet samples, SH; lt gr gy, w/ rd br to 512)?
512	595	(BEGIN CORE @ 514) From 514 59 534, 4' recov, SS, m gy, m, c, & v c, ox ark; @ 534 --> m gy, c - v c, v ark, w/ stks of ms; @ 537 --> fn - m, A calc @ 539 --> po cem; @ 544 --> fn, lt gy, A fn diss py; @ 557½ --> c & cg, v ark; @ 558 --> m - c, w/ stks fn, A fn diss py; @ 571 --> c & cg w/ gr cl gls; @ 573 --> fn w/ stks of m - c; @ 582 --> fn, p cem; @ 584 --> w cem w/ A calc
595	600	SH; lt gr gy w/ rd br Bottom at 600

HOLE NO. 163 AREA Sec. 10 13-9

FROM	TO	DESCRIPTION
0	20	Blow sand
20	245	SH, dk gy, sli arena; @ 70 → lt br; @ 80 → m gy; @ 115 dk gy
245	330	SS; lt gy, fn - m, all qtz; @ 320 → m gy w/s carb
330	374	SH; lt gr gy; @ 333 → mod arena; @ 339 3' SS m; @ 354 → ex arena; @ 360 → sli arena; @ 363 6' ex arena
374	392	SS; lt gr gy, fn - m, mod arg; @ 383 → sli arg
392	438	SH; lt gr gy w/br gy; @ 434 → rd br
438	457½	Begin Core at 438; SS, lt gy, fn; @ 441 → m gy, fn - m, sli arg; @ 445½ 4" ex arg; @ 446 → m - c, w/stks gr cl; @ 455 → m, no cl; @ 457 → w cem w/A calc
457½	470	SH; lt gy, no arena End Core; @ 458 (lost samples, driller reports)
470	482	SH & SS, intbdd
482	492	SH
492	581	Begin Core at 505, SS, lt gr gy, fn; @ 506 → fn - m, w/s gr cl gls; @ 509½ → m gy, fn - m, sli arg, fn diss py; @ 522 → c - v c, lt gy, w cem w/A calc, v ark; @ 524 → m gy, m - c, v ark, A calc; @ 527 → p cem; @ 528 → fn, lt gy, A calc, A pet res; @ 530½ → m gy, fn - m, fn diss py; @ 538 → p cem; @ 541 → fn, f cem, A fn diss py, sli arg; @ 545½ → fn - m; @ 548 → lt gr gy, m - c, v ark, s py, w/stks gr cl; @ 550 → m gy, fn, A fn diss py; @ 554 → fn - m, mod arg; @ 556 1' ex arg; @ 557 → fn - m, w/stks gr cl; @ 566 1' ex w cem w/A calc; @ 567 → fn, no arg; @ 570½ → fn - m, w cem w/A calc
581	583	SH; lt gr gy w/rd br Bottom at 583

HOLE NO. 164 AREA Sec. 10 13-9

FROM	TO	DESCRIPTION
0	35	Blow Sand
35	220	SH; lt br, v arena; @ 65 -> m gy no arena; @ 85 -> dk gy
220	310	SS; lt gy all qtz, fn - m, w so
310	348	SH; lt gr gy; @ 314 -> v arena; @ 346 -> sli arena
348	365½	SS; m gy fn m, sli arg
365½	407	SH; m gy no arena; @ 390½ -> mod arena, BEGIN CORE @ 395, SH; lt gr gy, v arena; @ 396 -> no arena; @ 400 -> w rd br; @ 403 -> lt gr gy sli arena
407	430	SS; lt gy, v fn, sli arg; @ 412½ -> w/ stks gr dl, m gy, m w/ s c; @ 415 -> m - c, A ry, mod arg w/ stks gr cl; @ 419 -> fn - m, w/ stks c, sli arg, fn diss py; @ 423½ -> m gy w/ stks lt gr gy, fn, sli arg, fn diss py; @ 428 -> lt gy, m, w cem w/ A calc
430	477	SH; lt gr gy w/ rd br, sli arena END CORE @ 432 (got wet samples)
477	497	SS; BEGIN CORE @ 478, m gy, fn - m, A fn diss py; @ 482 -> sli arg, m, A fn diss py; @ 488 -> fn sli arg; @ 485½ 3" gr cl; @ 490 -> m - c, v ark, A calc, A blk spks; @ 495 -> fn, no py no calc; @ 496 w cem, A calc
497	502	SH; lt gr gy w/ rd br; @ 501 -> ex arg
502	514	SS; dk gr gy w/ dk gy, m, v arg, A pet res, A py, coff?; @ 503 -> w cem w/ A calc, lt gy; @ 503½ -> m gy, fn, A blk spks; @ 506 -> c, m, & vc, v ark, w/ stks gr cl; @ 413 -> w cem w/ A calc
514	520	SH; rd br w/ lt gr gy; @ 517 -> v arena; @ 518 -> ex arena w/ A pet Res, coff?
520	564½	SS; m gy, fn A fn diss py; @ 522 -> fn - m A fn diss py; @ 523½ -> m - c, w/ stks gr cl, A py; @ 524½ -> fn - m, no cl; @ 527 -> m - c, s cg, w/ stks gr cl, v ark, s py; @ 533 -> fn - m; @ 536 -> lt gr gy, fn - m, A fn diss py sli arg; @ 541½ -> m gy fn - m, no cl, A blk spks; @ 543 -> po cem; @ 544 -> m, f cem; @ 554 -> v fn - fn, po cem, s py; @ 559 -> w cem w/ A calc; @ 564 -> w/ ls nods END CORE @ 564
564	585	SH; lt gr gy Bottom at 585

HOLE NO. 165 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	20	Blow sand
20	50	SS; lt br, fn - m
50	175	SH; dk gy, sli - mod arena; @ 115 -> ex arena
175	275	SS; lt gy, fn - m, all qtz
275	323	SH; lt gr gy; @ 290 -> ex arena; @ 296 no arena, w/br gy; @ 317 -> ex arena
323	332	SS; m, lt gy, mod arg; @ 326 -> m - c
332	374	SH; lt gr gy w/br gy, no arena; @ 347 -> mod arena
374	410	SS; begin Core; @ 375 SS; lt gr gy, fn - sli arg; @ 375½, 1½ gr gy, SH; @ 377 -> mod arg, fn diss py; @ 379 -> w/stks gr cl, fn - m, A py; @ 381 -> m - c, v arg, po cem, A py; @ 385 -> m, mod arg, A py, f cem; @ 389 -> m gy, fn, nO cl, fn diss py; @ 393 -> m - v c, sli arg, A py, A bk spks; @ 396 -> fn - m, fn diss py; @ 399½ -> m - c, A py; @ 402 -> fn - m; @ 403 6" w cem w/A calc @ 405 -> w/A gr cl gls; @ 406 -> ex arg, A py, sli pet res, A calc, End Core @ 406½
410	440	SH (Driller reports)
440	535	SS; v arg; @ 448 -> sli arg, Begin Core @ 460 SS, m gy, m - c, v ark; @ 462 -> fn - m,; @ 465 -> w cem w/A calc @ 466 -> fn - m, A py, A bk spks, po cem w/stks of w cem w/A calc; @ 467½ 2' SH rd br, w/gr gy, mod arena; @ 471 -> lt gr gy, fn, fn diss py; @ 479 -> fn - m @ 490 -> w/stks gr cl; @ 491 -> v fn, no cl; @ 496½ -> fn - m; @ 498 1' w cem w/A calc; @ 500 -> m gy, m; @ 506 -> lt gr gy, fn, mod arg, fn diss py; @ 511 -> m, mod arg; @ 516 -> fn, sli arg; @ 519½ -> m - c, mod arg, A py; @ 523 3' w cem w/A calc lt gy; @ 526 -> fn - m, sli arg, fn diss py; @ 531 -> w/stks w cem w/ A calc, @ 533 1' w cem w/A calc; @ 534 -> c, v arg
535	539½	SH; lt gr gy w/rd br, v arena Bottom at 539½

HOLE NO. 166 AREA Sec. 20, 13-9

FROM	TO	DESCRIPTION
0	35	Blow sand
35	170	SH; dk gy; @ 105 → ex arena
170	255	SS; lt br gy; @ 190 → dk gy, v arg s cafb; @ 200 → lt gy, all qtz
255	350	SH; lt gr gy; @ 287 → w/ br gy: @ 290 → lt gr gy
350	401	SS; lt gr gy, fn - m, BEGIN CORE @355, lt gr gy, fn - m w/ stks vc, sli arg; @ 359 → lt rd br, fn; @ 361 → rd br, fn - m, A hem stn; @ 365 2' SH, lt gr gy w/ rd br ex arena; @ 367¼ → lt gr gy w/ rd br, fn, sli arg A hem spks; @ 370 → M - c; @ 373 -- rd br, m - c, A hem stn; @ 377 8" ex arg, lt gr gy w/ rd br, SH, @ 384 → lt rd br stks w/ or br, fn; @ 386 → fn - m; @ 392 → rd br, m, A hem stn; @ 395 → w/ gr cl gls; @ 400½ 6" w cem w/ A calc
401	415	SH; lt gr gy, sli arena END CORE @ 402½ (Wet samples begin)
415	449	SS: m gr, fn - m
449	464	SH; lt gr gy
464	515	SS; lt gr gy w/ rd br, v fn, BEGIN CORE @ 465; @ 469 → m gy, fn - m v arg A blk mat coff? @ 470 → m gy, fn no dl, fn diss py; @ 479½ → lt gr fn, sli arg 485 - 495, 1½ recov, lt gy, fn - m; @ 495 → m gy fn - m; @ 499 → m gy w/ rd br, s hem stn, fn - m; @ 512 → lt gr gy w/ rd br, m, w cem w/ A calc
515		SH; lt gr gy Bottom at 515

HOLE NO. 172 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	45	Blow Sand
45	305	SH; m gy, dk gy, v sli - v arena
305	375	SS; lt br gy, fn - m; @ 325 --> lt gy, all qtz
375	395	SH; lt gr gy
395	402	SS; m gy, fn - m, v ark
402	417	SH; lt gr gy
417	466	SS; fn - m, m gy BEGIN CORE @ 418 SS; lt gy, fn - m @ 429 --> w/ stks gy cl; @ 430 --> po cem, mod arg; ¼ 436 --> m, lt gy, A calc, f cem; @ 439 --> m - c, A calc, A blk; @ 450 3' gr sh; @ 453 --> m - cg, w ee cem w/ A calc
466	472	SH; lt gr gy, occ mods cht, END CORE @ 469 --> wet samples
472	495	SS; lt gy, fn - m, A calc
495	504	SH; lt gr gy, mod arena, sli arena
504	530	SS; m gy, fn - m, v ark
530	545	SH; lt gr gy, sli arena to v arena
545	590	SS; BEGIN CORE @ 560, SS, c - cg, lt gy, v ark, w/ gr cl gls; @ 563 --> fn - m & c, w cem w/ A calc @ 564½ --> fn - m, A kaol; @ 575 --> m c 7 cg, mod arg; @ 586 --> fn -m, w cem w/ A calc; @ 589 --> lt gr gy, fn - m, w/ cem w/ A calc
590	604	SH; rd br, no arena; @ 590 --> lt gr gy w/ lt gy, END CORE @ 600 (lost samples, Driller Reports)
604	625	SS
625	640	SH Bottom at 640

HOLE NO. 175 AREA Sec. 10, 13-9

FROM	TO	DESCRIPTION
0	40	Blow Sand
40	80	SS; lt br, mod arg
80	225	SH; m - dk gy, sli - v arena
225	318	SS; lt gy, fn - m, all qtz; @ 255 --> m gy w/ s carb; @ 265 --> all qtz
318	360	SH; lt gr gy, BEGIN CORE @ 348; @ 354 --> w/ rd bn; @ 358 --> v arena, w/ A py,, s Pet Res
360	404	SS; m gy, c - vc, v ark; @ 366 --> fn - m, fn diss py, A blk cht; @ 368 --> m - c, w/ so ct, A blk cht; @ 377 --> w/ s gr cl gls, c - vc, v ark; @ 378 --> fn - m, A fn diss py; @ 380 --> m - c, po cem; @ 386 --> fn - m, po cem; @ 393, ½" SH; @ 394 --> fn - v fn, f cem,
404	432	SH; lt grgy, v arena; @ 406 --> rd br, v arena, END CORE @ 407 (Go to wet samples) SH rd br w/ lt gr gy
432	465	SS; fn - m, m gy
465	493	SH; rd br w/ lt gr gy
493	581½	SS; fn - m, lt gr gy w/ s lim sta BEGIN CORE @ 517, SS, modrd br w/ m gy, A lim stn; @ 522 --> m - c, A hem stn; @ 537, 1' m gy, v fn - fn; @ 538 --> fn - m, lt rd br, A hem stn; @ 552 --> dk rd br, m - c, A hem stn; @ 565, 1½' SH, lt gr gy w/ rd br, v arena; @ 567 --> fn - m, mod rd br, A hem stn w/ stks rd sh; @ 579 --> w cem w/ A calc
581½	585	SH; rd br w/ lt gr gy, v arena Bottom at 585

8/14/56

RECEIVED
AUG 13 1956

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

Date: [illegible]

FINAL DISTRIBUTION
AUG 10 1956
MADE

Payee's Reference: [illegible]

[illegible]

DME A-4017

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ [illegible]

Difference $ [illegible]

Amount Approved $ [illegible]

The reason for the difference was due to:

[illegible]

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

N. E. Stokes
Audit Section

R-III-B & F Form No. 4
4-15-52 D

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
AUG 13 1956

224 New Customhouse
Denver 2, Colorado

August 8, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 4017 (Uranium) Contract Idm-E940, Colamer Corporation (Phillis, Fannie, Jean and Deeta claim groups) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of May, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Operator's Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations, except for the following deductions.

Disallow 1) an amount of $280.00, the actual cost of 80 feet of core drilling in hole No. 104 at $3.50 per foot. The Operator has claimed the cost of 178 feet of core drilling in this hole, but driller's logs indicate that only 98 feet of core drilling was performed.

2) an amount of $21.60, the Incidental Allowance for 80 feet of drilling at $0.27 per foot.

Total amount disallowed - - - - - - - - - - - $301.60

Reconciliation with Amount Reported by the Operator on Form MF-104 for May, 1956

Amount reported on Form MF-104 - - - - - - - - - - - - -	$12,971.67
Amount disallowed- -	301.60
Total accepted costs- -	$12,670.07
Government Participation at 75 percent- - - - - - - - - -	$ 9,502.55

Driller's logs, radiometric logs and geologic logs are retained at the Denver Experiment Station.

Remarks

Date of Report- - - - - - - - - - - - - - - - - - -	July 7, 1956
Date Received in Field Office- - - - - - - - -	July 9, 1956
Date Received in Region Office- - - - - - - -	August 1, 1956

W. M. TRAVER

W. M. Traver

Enclosures

JDC:jy
cc: MF-104 File E940
Sec. Op. Comm. (2)
Shaw (2)
Townsend w/copy engr's report
Chron.

DMEA
Date Rec'd.

AUG 1 1956

BUREAU OF MINES
Denver, Colorado

RECEIVED
AUG 1 1956

REGION III

Memorandum

Building 20
Denver Federal Center
Denver 2, Colorado
July 24, 1956

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: W. D. McMillan

Subject: DMEA Docket 4617, Contract Ldm-2940, Colamar Corporation, Phillis, Fannie, Jean, and Beeta Claim Groups, Sec. 10, T. 13 N., R. 9 W., NMPM, McKinley County, New Mexico
Progress Report for May, 1956

Progress was checked on June 4, 1956 accompanied by Jean Maly and Kelsey Bolts, geologists for Colamar Corporation.

Data on the holes drilled during May, 1956, from the drilling contractor's logs are given below:

Hole No.	Non-core	Core	Total	Core Recovery	Remarks
103	450	130	580	95	5 feet-0.03 to 0.08% U_3O_8
104	495	98	593	86	2 feet-0.02 to 0.09% "
105	497	100	597	84	Few inches 0.03% "
106	465	80	545	86	No radiometric anomalies
107	491	54	545	69	" " "
108	414	84	498	85	Few inches 0.03% U_3O_8
109	340	121	461	83	No radiometric anomalies
110	302	123	425	86	" " "
111	526	29	555	91	" " "
112	470	99	569	77	< 0.01% U_3O_8
113	358	206	564	76	W.W.C.-7 feet 0.03 to 0.12% U_3O_8
					P.C.-4 feet 0.025 to 0.06% "
114	488	62	550	100	5 feet 0.03% "
115	495	45	540	100	4 feet 0.035% "
116	482	53	535	89	W.C.-1.5 feet 0.025 "
117	414	111	525	89	P.C.-3.0 feet 0.030 "
					W.C.-6.5 feet 0.070 "
118	402	110	512	82	No Radiometric Anomalies
119	433	72	505	67	" " "
Totals	7522	1577	9099		

The operator claims 7334 feet plug bit drilling and 1657 feet paid core bit drilling.

The drill contractor's logs show 7522 feet of non-core drilling as compared with 7334 feet shown by the operator, and the drillers logs only show 1577 feet of core drilling as compared with 1657 claimed by the operator. Therefore the allowable footage of non-core drilling is reduced by 108 feet, and the allowable footage of core drilling reduced by 80 feet. The claimed unit costs are in accordance with the contract between Minerals Engineering Company and Colamer Corporation.

Approved costs for May are 7334 feet of non-core drilling at $0.70 per foot or $5,133.80, 1577 feet of core drilling at $3.29 per foot or $5,188.33, incidental allowance 8911 feet at $0.27 per foot or $2,405.97, a total of $12,728.10.

It is recommended that 75 percent of the approved total cost, amounting to $9,546.08, be approved for payment.

The operator submitted one copy each of driller's logs and radiometric logs which are retained in this office.

Copies in quintuplicate of the intervals and equivalent U_3O_8 and the formations are enclosed with this report.

W. D. McMillan
Mining Engineer

WDM:ah

cc: 6
Idm-EP40
Chron.

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
AUG 13 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1956 Docket No. DMEA 4017 Contract No. Idm-5940
Operator's Name COLAMER CORPORATION Minerals URANIUM
Address GRANTS, NEW MEXICO
Contract Amount, $ 102,580.00 Government Participation: ____% Amount, $ 76,935.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent / Short Form Contracts:						
Drilling Core	5,410.30	728.00	6,138.30			
Bulldozing						
Crosscutting						
Drifting						
Drilling Plug Bit	5,133.80	556.50	5,690.30			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Incidental Allowance @ 0.27 /ft.	2,427.57	270.81	2,698.38			
(8) Contingencies (specify):						
TOTALS	12,971.67	1,555.31	14,526.98	12,670.07	1,555.31	14,225.38

I certify that the above bill is correct and just and that payment therefor has not been received.

Date July 7, 1956 *Payee COLAMER CORPORATION

Per [signature] Title Geologist

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 9502.55

Signature [signature]
(Authorized Certifying Officer)

Date 8/9/56 Vou. No. DMA 57-18

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E 946 in accordance with the terms of the contract.

Signature Wm McMullen C# 9546.08 Title Min. Engr. Date 7/19/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Mary Title Executive Officer Date AUG 8 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

RECEIVED
AUG 13 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 195 6 Docket No. DMEA 4017 Contract No. Idm-8240
Operator's Name COLANER CORPORATION Minerals URANIUM
Address GRANTS, NEW MEXICO

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	5,410.30	1,657	6,138.30	~~1,865~~ 1,785	3.29		3.50
Churn								
Auger Plug Bit	Ft.	5,133.80	7,334	5,690.30	8,129	.70		1.25
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Assays	ea	0	0	0	0	3.50	40	3.50
TOTAL DISTRIBUTED COSTS		10,544.10						TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Incidental Allowance		2,427.57	8991	2,698.38	0.27 per ft.			
TOTAL COSTS		12,971.67		14,526.98				

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date July 7, 1956 Operator COLANER CORPORATION

Per Kelsey [signature] Title Geologist

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only) [signature]

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

July 7, 1956

MONTHLY INFORMATIVE REPORT ON DMEA DOCKET 4017,
CONTRACT Iom-E940
Month of May

During the month of May the following holes were completed;

Hole No.	Non Core	Core	% Recov.	Core paid	Date completed
103	450	130	95	130	5-02-56
104	415	178	86	173	5-03-56
105	497	100	84	100	5-11-56
106	465	80	86	80	5-14-56
107	491	54	69	37.3	5-15-56
108	414	84	85	84	5-23-56
109	340	121	83	121	5-26-56
110	302	123	86	123	5-29-56
111	418	29	91	29	5-03-56
112	470	99	77	76.2	5-02-56
113	358	206	76	156.6	5-11-56
114	488	62	100	62	5-13-56
115	495	45	100	45	5-15-56
116	482	53	89	53	5-17-56
117	414	111	81	111	5-24-56
118	402	110	82	110	5-27-56
119	433	72	69	49.7	5-29-56
Total	7334	1657		1545.8	

Some difficulty has been experienced in drilling most of the holes. Hole 113 had to be cased before it could be probed. Therefore, the readings on the radiometric bahble log can be increased approximately 10%. The Empire log, however, reached a depth of 400 feed before casing was put into the hole.

To date the Fosion Canyon sandstone has been bleached in every hole. In holes 118 and 119, however, part of the Fosion Canyon was unbleached. The Westwater has been unbleached in holes 117, 118 and 119. However, as can be seen on the radiometric log of hole 117 at least one horizon was bleached and in this horizon the best mineralization, yet found in Section 10 in the Westwater, occurred. Drillers logs and radiometric logs were sent with the previous report.

Respectfully,

COLAMER CORPORATION

Kelsey Holtz

KELSEY HOLTZ

HOLE NO.	INTERVAL & EQUIVALENT CHEM. %U3O8		REMARKS
101	550 - 550.5	(.02%)	Bottom Jmwc, SS
102	449 - 450	(.02%)	Jmbb, SH
103	422.5 - 423.5	(.04%)	Poison Canyon SS
	398 - 399	(.045%)	Poison Canyon SS
	366.5 - 367.5	(.08%)	Ex arena Jmbb SH
	317 - 318	(.03%)	Jmbb SH
	309 - 310	(.07%)	Kd
104	554.5 - 555.5	(.03 -.04%)	Jmwc
	549.5 - 550.5	(.02 - .03%)	Jmwc
105	335, several inches	(.03%)	Jmbb SH
106			No count
107			No count
108	419.5 several inches	(.03%)	Poison Canyon SS
109			No count
110			No count
111	500 - 500.5	(.03%)	Jmwc SS
	487.5 - 488	(.08%)	Jmwc SS & SH?
	488 - 488.5	(.12%)	Jmwc SS & SH?
	[illegible].5 - 489	([illegible]%)	Jmwc SS & SH?
	489 - 489.5	(.04%)	Jmwc SS & SH?
	475.5 - 477.5	(.03%)	Jmwc SS
	437.5 several inches	(.025%)	Poison Canyon SS
	406 - 407	(.03%)	Poison Canyon SS
	407 - 407.5	(.06%)	Poison Canyon SS
	407.5 - 408.5	(.04%)	Poison Canyon SS
112	445 - 446.5	(.025%)	Poison Canyon SS
	382 - 383	([illegible]%)	Jmbb SS
	350 - 354	(.03%)	Jmbb SS
113	557 - 558	(.03%)	Jmwc SH
114	399 - 400	(.04%)	Jmbb SH
	441 - 442	(.02%)	Jmwc SH
	445 - 446	(.03%)	Jmwc SH
115	337.5 - 378.5	(.035%)	Jmbb SH
	370 - 373	(.04%)	Jmbb SH
	342 - 343	(.045%)	Jmbb SH
116	324.5 - 326	(.025%)	Jmbb SH
117	517 - 519	(.06%)	Jmwc SS
	519 - 523	(.03%)	Jmwc SS
	385 - 387.5	(.11%)	Poison Canyon SS
	379 - 384	(.045%)	Poison Canyon SS
118			No count
119			No count
120	346 - 347	(.025%)	Bottom Poison Canyon SS
121	375.5 - 376.5	(.04%)	Jmbb SH
122			No count

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CONT.

HOLE NO.	INTERVAL & EQUIVALENT CHEM. %U3O8		REMARKS
148	463 - 464	(.03%)	Jmbb SS (Poison Canyon)
	456 - 460	(.08 - .09%)	Jmbb SS (Lithologic log of this hole, based on driller's report due to lost circulation, states SH in this interval, However, gamma ray log indicates SS instead of SH.
149			No count
159	470 - 471	(.03%)	Poison Canyon SS
160	425 - 426	(.025%)	Bottom Poison Canyon SS
161	494 - 495	(.04%)	Jmbb SH
	462 - 463	(.05%)	Jmbb SH
	466 - 467	(.04%)	Jmbb SH
	345 - 355	(.03 - .04%)	Jmbb SH
162	516 - 517	(.04 - .05%)	Jmwc SS
	466.5 - 467.5	(.06%)	Jmbb SH?
	467.5 - 468.5	(.035%)	Jmbb SH?
163	No		No count
164			No returns from AEC yet
165	405.5 - 407	(.04% - .05%)	Poison Canyon SS
166	463.5 - 465	(.03%)	Top Jmwc
172			No count
175	466 - 467.5	(.09%)	Bottom Poison Canyon SS

7/26/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUL 25 1956

224 New Customhouse
Denver 2, Colorado

FINAL DISTRIBUTION
MADE JUL 23 1956

July 19, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 4017 (Uranium) Contract Idm-E940, Colamer Corporation (Phillis, Fannie, Jean and Deeta groups) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of April, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Remarks

Date of Report----------July 7, 1956
Date Received in Field Office----------July 9, 1956
Date Received in Region Office---------- July 18, 1956

W. M. TRAVER

W. M. Traver

Enclosures
JDC:jy
cc: MF-104 File E940
Sec. Op. Comm. (2)
Shaw (2)
Chron.

DMEA
Date Rec'd.
JUL 18 1956
BUREAU OF MINES
Denver, Colorado

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
July 18, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

RECEIVED
JUL 25 1956

From: W. D. McMillan

Subject: Docket DMEA 4017, Contract Idm-E940, (Uranium) Colamer Corporation, Phillis, Fannie, Jean, and Deeta claim groups, Sec. 10, T. 13 N., R. 9 W., NMPM, McKinley County, New Mexico -- Progress report for April 1956

Progress was checked on May 3, 1956 accompanied by Jean Baly, geologist for Colamer Corporation.

Data pertaining to holes completed during April are given below from the driller's logs.

Hole No.	Plug-bit	Core-bit	% Core Recovery	Total	Remarks
101	385	180	76	565	316-318 -0.02% U_3O_8
102	410	211	81	621	447-451 -0.023%
	795	391		1,186	

Core bit drilling was through the Westwater Canyon member and into the Recapture member, which is contrary to the terms of the contract and only the core-bit drilling through the Poison Canyon part of the Brushy Basin member is being claimed.

Considerable difficulty was experienced in Hole 101, which required 8 days to complete with NX core-bit from 385 feet to 572 feet, BX core-bit from 512 feet to 543 feet and NX core-bit from 543 to 565 feet.

The cores are stored in a galvanized iron shed. The bottom boxes were examined and were found to be in bleached Westwater Canyon sandstone with considerable amounts of pyrite. In Hole 102 there was broken core between 605.4 feet and 606.4 feet.

The operator claims 795 feet of plug-bit drilling at $0.70 a foot or $556.50, 208 feet of core-bit drilling at $3.50 a foot or $728.00, and incidental allowance of 1003 feet at $0.27 a foot, or $270.81, with a total of $1555.31.

It is recommended that 75 percent of the total claimed or $1166.48 be approved for payment.

The claimed unit costs for plug-bit, core-bit, and incidentals are in accordance or less than the contract unit costs. A certified copy of Colsmer Corporation's sub-contract with Minerals Engineering Company is on file in your office.

Holes numbers 101 and 102 are located on a north-south fence 200 feet east of the western boundary of Sec. 10, and 200 feet and 600 feet respectively south of the northern boundary of Sec. 10, with Hole No. 101 on the Karen No. 8 claims and Hole 102 on the Jean No. 29 claim. These have been placed on Sketch Map No. 2, a copy of which is attached to the original of this memorandum.

The operator submitted copies of the radiometric logs and the drilling contractor's logs, which are being retained in this office.

W. D. McMillan
Mining Engineer

WDM/mw
cc: 6
Idm-E940
Chron

RECEIVED
JUL 25 1956

July 7, 1956

OPERATORS MONTHLY NARRATIVE REPORT DMEA DOCKET 4017
CONTRACT Idm-E940

Drilling under this contract was commenced April 24, 1956. Two holes were completed by April 30, 1956:

HOLE NO.	NON CORE	CORE	% RECOV.	CORE PAID	DATE COMPLETED
101	385	105	81	105	4-30-56
102	410	103	92	103	4 4-30-56
Totals	795	208		208	

Considerable difficulty was encountered in hole no. 101 in recovery of core. This was due to the highly fractured Poison Canyon Sandstone. Also, these were the 1st holes drilled by the contractors and recovery will undoubtly improve when they become more familiar with subsurface conditions.

Copies of drillers logs and radiometric logs were enclosed with previous report.

Respedtfully,

COLAMER CORPORATION

Kelsey Boltz

KELSEY BOLTZ

KB/lj

MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.5

RECEIVED
JUL 25 1956

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April 1956 Docket No. DMEA 4017 Contract No. Idm-E940
Operator's Name COLAMER CORPORATION Minerals URANIUM
Address GRANTS, NEW MEXICO
Contract Amount, $ 102,580.00 Government Participation: 75 % Amount, $ 76,935.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Core	728.00	0	728.00			
Bulldozing						
Crosscutting						
Drifting						
Drilling Plug Bit	556.50	0	556.50			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
Incidental Allowance	270.81	0	270.81			
(8) Contingencies (specify):						
TOTALS	1,555.31	0	1,555.31	1,555.31	—	1,555.31

I certify that the above bill is correct and just and that payment therefor has not been received.
Date July 7, 1956 *Payee COLAMER CORPORATION
Per [signature] Title Geologist

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1166.48

Signature [signature]
(Authorized Certifying Officer)
Date 7/20/56 Vou. No. DMA 57-10
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Tdm-E 946 in accordance with the terms of the contract.

Signature Leon C. Mullaney $1163.48 Title Min. Engr. Date 7/13/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. M. Haney Title Executive Officer Date JUL 19 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 25 1956

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 6 195 Docket No. DMEA 4017 Contract No. Idm-E940
Operator's Name COLAMER CORPORATION Minerals URANIUM
Address GRANTS, NEW MEXICO

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	728.00	208	728.00	208	3.50	11,200	3.50
Churn								
~~XXXX~~ Plug Bit	Ft.	556.50	795	556.50	792	0.70	39,200	1.25
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Assays	ea.					3.50		3.50
TOTAL DISTRIBUTED COSTS		1,284.50		1,284.50				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Indidental Allowance		270.81	1003	270.81				
TOTAL COSTS		1,555.31		1,555.31				76,935.00

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date July 7, 1956 Operator COLAMER CORPORATION

Per [signature] Title Geologist

→ NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

REMARKS:

(Instructions on reverse)

(For Government use only) W. McMillan

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

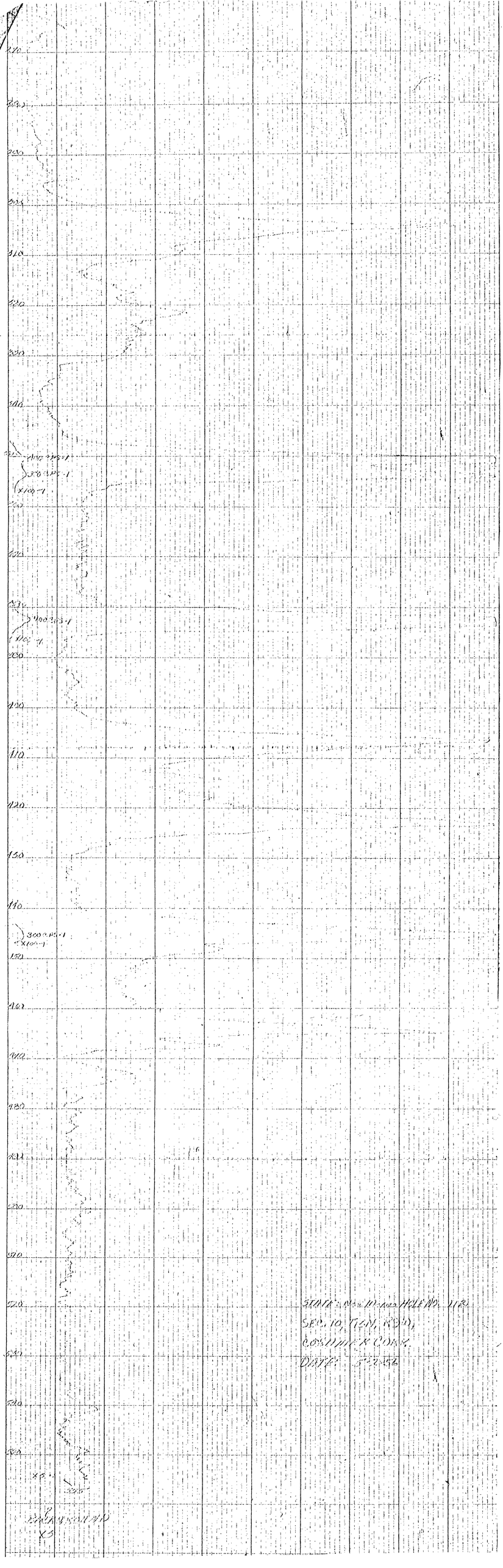
SEC 10, T13N, R9W

COLAMCO CORP

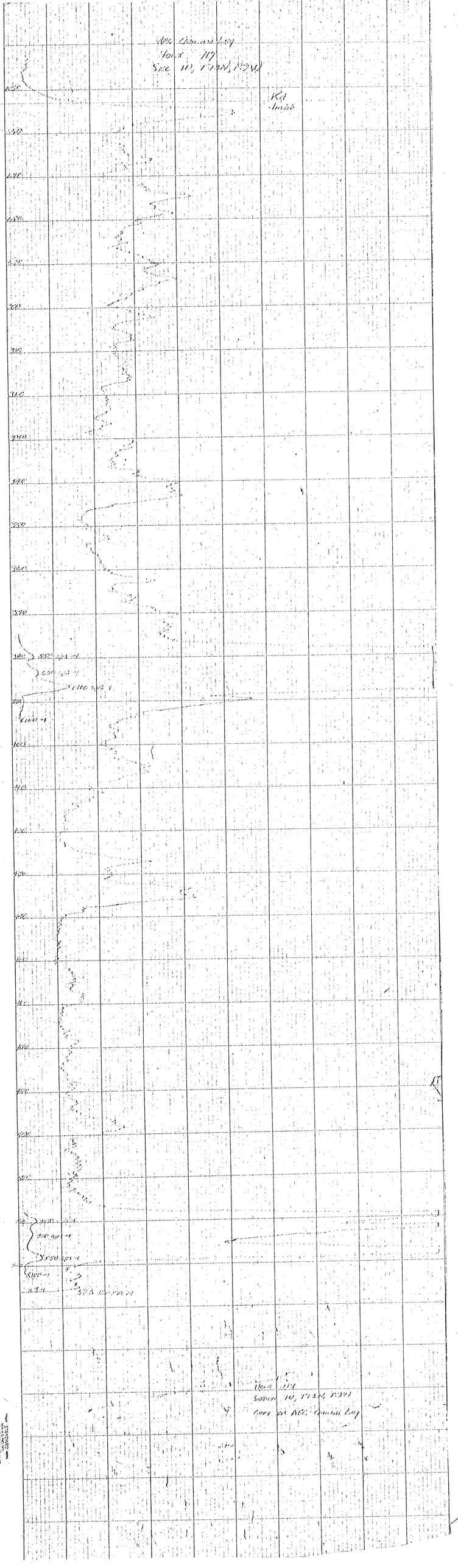
DATEH LOCKET 401
SHOWING HOLE LOCATIONS
AND CORRESPONDING
NUMBERS OF 1ST STAGE

[illegible]
MORTAR [illegible]

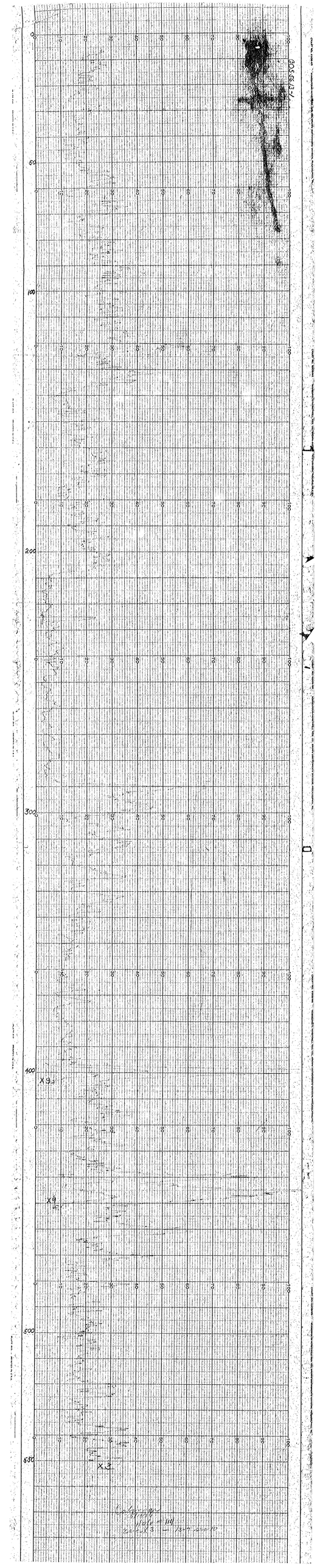
RECEIVED
JUL 2 5 1956


STATE: New Mexico HOLE NO. 112
SEC. 10, T.6N, R.9W,
COUNTY: Cibola
DATE: 5-2-54

STATE: NEW MEXICO HOLE NO. 105
SEC. 10, T13N, R9W
COLDWATER CAMP
DATE: 5-2-56


AEC Gamma Log
Hole 117
Sec 10, T15N, R30W
Ka
Imbb
Hole 117
Section 10, T15N, R30W
Copy of AEC Gamma Log

100
200
300
400
500
542
X-3
CHART NO. 6308-NR
MINNEAPOLIS-HONEYWELL REG. CO., BROWN INSTRUMENTS DIVISION, PHILADELPHIA, PA.


0
50
100
200
300
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500
550
X9
X9
X3
X3

LEGEND FOR X-SECTIONS

MANCOS

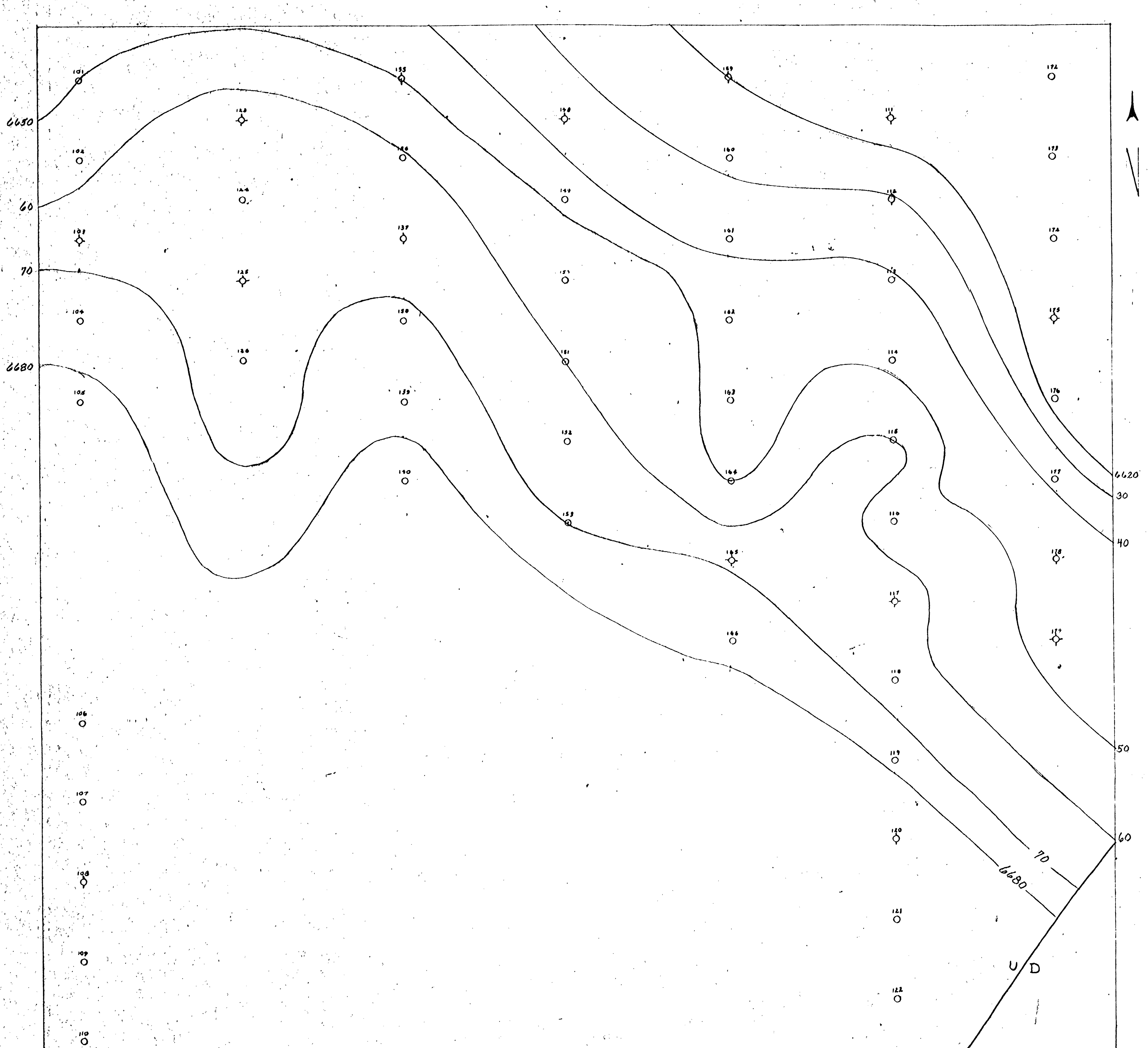
DAKOTA

MORRISON SHALES

MORRISON SANDSTONES

Ⓕ101 FANNIE NO. 28 123	135 DEE NO. 19 146	159 PHYLLIS NO. 10	172 Ⓕ111 JEAN NO. 1
Ⓕ102 J NO. 29 124 Ⓟ103	136 F NO. 20 145 137	160 D NO. 11 161	173 Ⓕ112 P NO. 2 174
125 Ⓕ104 P NO. 30 126	138 J NO. 21 139	162 F NO. 12 163	Ⓕ113 D NO. 3 175 Ⓕ114
Ⓕ105 D NO. 31 127	139 P NO. 22 140	164 J NO. 13 165	176 Ⓕ115 F NO. 4 177
128 F NO. 32 129	141 D NO. 23 142	166 P NO. 14	Ⓕ116 J NO. 5 178 Ⓟ117
J NO. 33 130 Ⓟ106	142 F NO. 24 155 143	166 D NO. 15 167	179 Ⓕ118 P NO. 6 180
131 Ⓕ107 P NO. 34 132	144 J NO. 25 157	168 F NO. 16	Ⓕ119 D NO. 7 181 Ⓕ120
Ⓟ108 D NO. 35 133 Ⓟ109	145 P NO. 26 146	169 J NO. 17 170	Ⓕ121 F NO. 8
134 Ⓕ110 F NO. 36	147 D NO. 27	171 P NO. 18	Ⓕ122 J NO. 9

DMEA DOCKET 4017
COLLMER CORP
SEC 10, T13N, R9W, McKINLEY Co.
SHOWING PROPOSED 2ND STAGE LOCATIONS



6620 — STRUCTURE CONTOURS ON BASE Kd

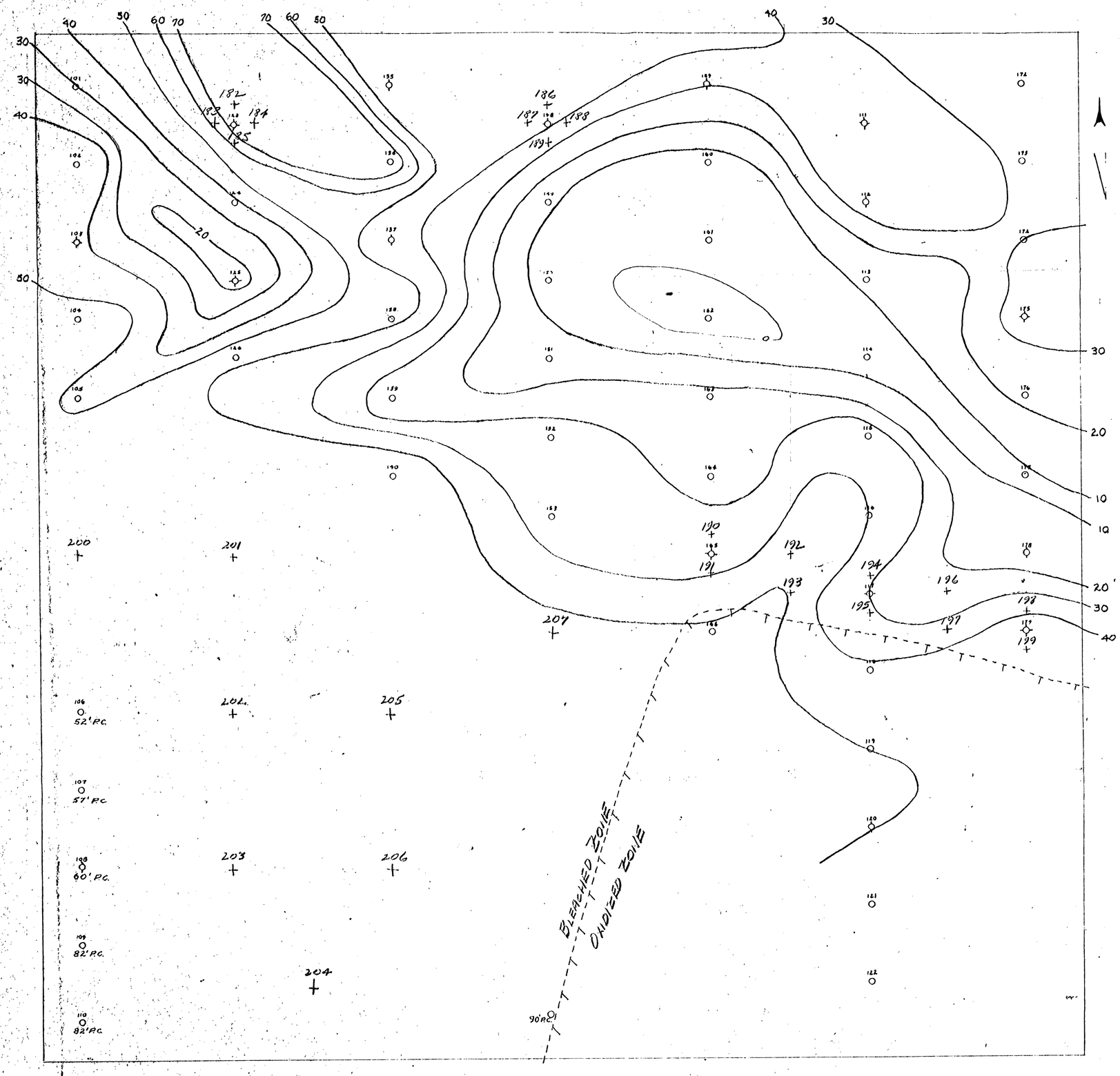
DMEA DOCKET 4017 SECTION 10, T13N, R9W

COLAMER CORP

- ⌽ HOLES SHOWING FROM 0.02% - 0.05% U_3O_8
- ⌖ MINERALIZED HOLES GREATER THAN 0.05% U_3O_8
- ○ HOLES WITH LESS THAN 0.02% U_3O_8

SCALE: 1" = 300'

MAP A



ISOPACH ON POISON CANYON SS

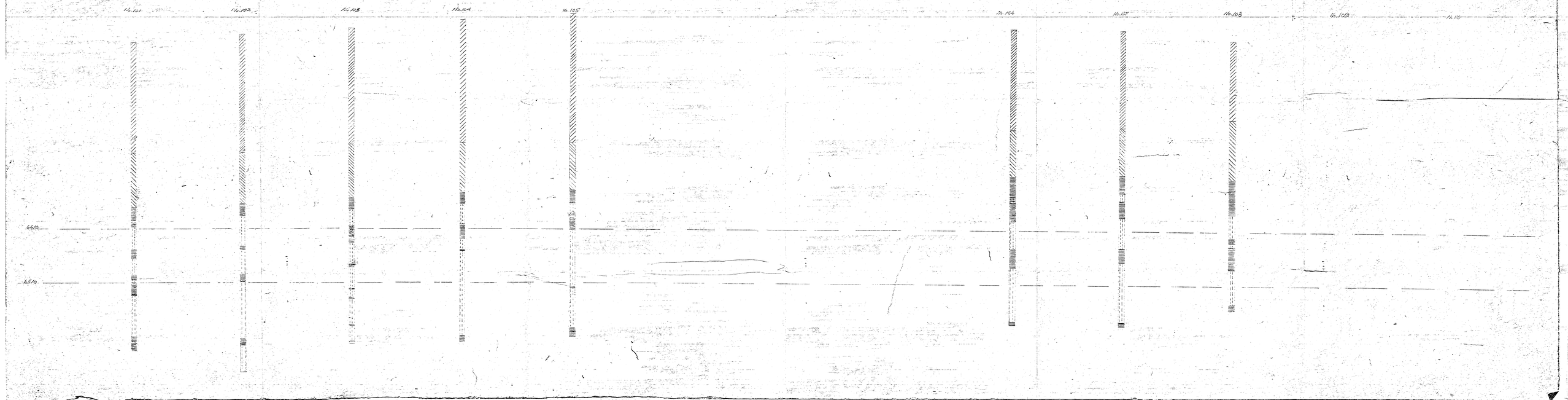
DMEA DOCKET 4017 SECTION 10, T13N, R9W
COLAMER CORP.

HOLES SHOWING FROM 0.02% - 0.05% U_3O_8
MINERALIZED HOLES GREATER THAN 0.05% U_3O_8
HOLES WITH LESS THAN 0.02% U_3O_8

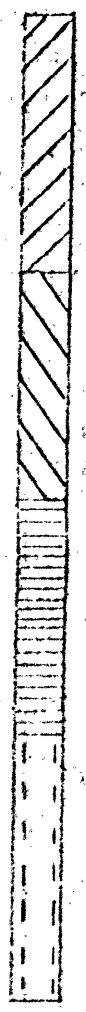
SCALE: 1" = 300'

183 + PROPOSED 3RD STAGE LOCATIONS

SCALE 1" = 100' Horiz.
1" = 50' Vert.



LEGEND FOR X-SECTIONS



MANCOS

DAKOTA

MORRISON SHALES

MORRISON SANDSTONES