VOLUME II
EXHIBITS

HYDROCARBON EVALUATION
PROPOSED SOUTHEASTERN NEW MEXICO
RADIOACTIVE MATERIAL STORAGE SITE
EDDY COUNTY, NEW MEXICO

EFFECTIVE DATE: SEPTEMBER 1, 1976

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December 1, 1976

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Kerry E. Williams

Authorizing Official

Date: 12/02/2005

John Jay Kessey

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LIST OF EXHIBITS

SANDIA LABORATORIES HYDROCARBON EVALUATION PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE

Effective Date: September 1, 1976

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AREA MAP

SIPES, WILLIAMSON & AYCOCK, INC.

Ref. No.

EXHIBIT No. 1

Consulting Engineers

Midland - Houston, Texas

GENERALIZED SECTION

CLAYTON W. WILLIAMS, JR.
BADGER UNIT FEDERAL
SEC. 15, 22 S-31 E

CORRELATION TIME CHART

FIELD DELAWARE BASIN County EDDY & LEA State NEW MEXICO

Engineer J. J. K. Drwn. By H's Date 9-1-76 File SANDIA

SIPES, WILLIAMSON & AYCOCK, INC. Consulting Engineers Midland - Houston, Texas Ref. No. 6.1025 EXHIBIT NO. 2

LEGEND

- WC - Wolfcamp Completion
- M - Morrow Completion
- A - Atoka Completion
- S - Strawn Completion
- BS - Bone Springs Completion
- D - Delaware Completion

COMPLETION MAP

HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE

FIELD	VARIOUS	County	EDDY & LEA	State	NEW MEXICO
Engineer	J. J. K.	Drwn. By	H's	Date	9-1-76
				File	SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.				Ref. No.	6.1025
Consulting Engineers				EXHIBIT NO. 3	
Midland-Houston, Texas

LEGEND

- S - Strawn Completion
- D - Delaware Completion
- BS - Bone Springs Completion
- WC - Wolfcamp Completion

ULTIMATE RECOVERY MAP - VARIOUS ZONES

HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE

FIELD	VARIOUS	County	EDDY & LEA	State	NEW MEXICO
Engineer	J. J. K.	Drwn. By	H's	Date	9-1-76
SIPES, WILLIAMSON & AYCOCK, INC.				Ref. No.	6.1025
Consulting Engineers				Midland-Houston, Texas	EXHIBIT NO. 4

LEGEND

○ - Atoka Completion
 0.66 - Ultimate Recovery, BCF
 (5770) - Bbl. Condensate

ULTIMATE RECOVERY MAP-ATOKA ZONE

HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE

FIELD	VARIOUS	County	EDDY & LEA	State	NEW MEXICO
Engineer	J. J. K.	Drwn. By	H's	Date	9-1-76
				File	SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.				Ref. No.	6.1025
Consulting Engineers				Midland-Houston, Texas	EXHIBIT NO. 5

LEGEND

- - Morrow Completion
- 1.15 - Ultimate Recovery, BCF
- (1363) - Bbl. Condensate

ULTIMATE RECOVERY MAP - MORROW ZONE					
HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE					
FIELD VARIOUS			County EDDY & LEA		State NEW MEXICO
Engineer J. J. K.		Drwn. By H's	Date 9-1-76	File SANDIA	
SIPES, WILLIAMSON & AYCOCK, INC.				Ref. No.	EXHIBIT NO. 6
Consulting Engineers		Midland-Houston, Texas		6.1025

LEGEND

○²⁷ Well Reference No. (SW&A Tract No.)
 CROSS SECTION TRACES — E-E', F-F' Bone Springs
 I-I', J-J', K-K' Delaware

Contour Interval -100'
 (50' C.I. in Buffer Zone)

TOP OF DELAWARE—REGIONAL STRUCTURE MAP SHOWING CROSS SECTION TRACES & WELL REFERENCE NUMBERS HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE

FIELD VARIOUS		County EDDY & LEA		State NEW MEXICO	
Engineer J. J. K.		Drwn. By H's	Date 9-1-76	File SANDIA	
SIPES, WILLIAMSON & AYCOCK, INC.			Ref. No.	EXHIBIT NO. 8	
Consulting Engineers			Midland-Houston, Texas	61025

LEGEND
○ 27 Well Reference No. (SWBA Tract No.)
CROSS SECTION TRACES — A-A', B-B', C-C'
for Morrow, Atoka & Strawn

Contour Interval — 100'

TOP STRAWN-REGIONAL STRUCTURE MAP
HYDROCARBON EVALUATION — PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE
MATERIAL STORAGE SITE

FIELD	VARIOUS	County	EDDY & LEA	State	NEW MEXICO
Engineer	J. J. K.	Drwn. By	H's	Date	9-1-76
Consulting Engineers	SIPES, WILLIAMSON & AYCOCK, INC.	Ref. No.	6.1025	EXHIBIT NO.	9

Contouring based on
Seismic Interpretation by
G.J. Long & Associates, Inc.
September, 1976.

Contour Interval -100'

STRUCTURE - TOP OF MORROW

HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE
MATERIAL STORAGE SITE

FIELD	VARIOUS	County	EDDY & LEA	State	NEW MEXICO
Engineer	J J K	Drwn. By	Hs	Date	9-1-76
SIPES, WILLIAMSON & AYCOCK, INC.				Ref. No.	61025
Consulting Engineers				EXHIBIT NO. 10	
Midland-Houston, Texas

LEGEND

⊙ - Devonian Penetrated
12,141' - Sub. Sea Elev.
per Log Picks

Contour Interval - 100'

Contouring based on
Seismic Survey Report
of the Los Medanos
area by Colin McMillan
dated July 21, 1976.

STRUCTURE - TOP OF DEVONIAN

HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE
MATERIAL STORAGE SITE

FIELD VARIOUS		County EDDY & LEA		State NEW MEXICO	
Engineer J. J. K.		Drwn. By H's		Date 9-1-76	
				File SANDIA	
<u>SIPES, WILLIAMSON & AYCOCK, INC.</u>				Ref. No.	
Consulting Engineers				61025	
Midland-Houston, Texas				EXHIBIT NO. 12	

FIELD VARIOUS		County EDDY & LEA		State NEW MEXICO	
Engineer J. J. K.		Drwn. By H's	Date 9-1-76	File SANDIA	
<u>SIPES, WILLIAMSON & AYCOCK, INC.</u>				Ref. No.	EXHIBIT NO. 13
Consulting Engineers		Midland-Houston, Texas		6.1025

STRUCTURE - TOP OF ATOKA			
<i>HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE</i>			
FIELD LOS MEDANOS		County EDDY	State NEW MEXICO
Engineer J. J. K.	Drwn By H's	Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.		Ref No 6.1025	EXHIBIT NO. 15
Consulting Engineers		Midland - Houston, Texas

ISOPACH-ATOKA NET PAY

HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE
MATERIAL STORAGE SITE

FIELD	LOS MEDANOS	County	EDDY	State	NEW MEXICO
Engineer	J. J. K.	Drwn. By	H's	Date	9-1-76
SIPES, WILLIAMSON & AYCOCK, INC.				File	SANDIA
Consulting Engineers				Ref No	6.1025
Midland - Houston, Texas				EXHIBIT NO. 16

STRUCTURE - TOP OF MORROW LIME

HYDROCARBON EVALUATION - PROPOSED SOUTHEASTERN NEW MEXICO RADIOACTIVE MATERIAL STORAGE SITE

FIELD LOS MEDANOS		County EDDY		State NEW MEXICO	
Engineer J. J. K.		Drwn By H's		Date 9-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC				Ref No 6.1025	EXHIBIT NO. 17
Consulting Engineers Midland - Houston, Texas

STRUCTURAL CROSS SECTION 1-1'				
WEST-EAST				
FIELD	VARIOUS	County	EDDY & LEA	State NEW MEXICO
Engineer	J.J.K. Drawn By H's	Date	7-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.		Ref. No.	6.1025	EXHIBIT NO. 18
Consulting Engineers		Midland - Houston, Texas		

No. 7

No. IC

No 11

No 12

No 13

No. 14

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

(EAST)

STRUCTURAL			
CROSS SECTION J-J			
WEST-EAST			
FIELD	VARIOUS	County	EDDY & LEA
		State	NEW MEXICO
Engineer	J.J.K. Drwn By H's	Date	7-1-76
		File	SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.		Ref. No.	
Consulting Engineers		Midland - Houston, Texas	6/1025
			EXHIBIT NO. 19

K
(NORTH)

No. 1

No. 3

No. 4

No. 5

No. 7

No. 10

No. 9

K'
(SOUTH)

| STRUCTURAL
CROSS SECTION K-K'
NORTH-SOUTH			
FIELD	VARIOUS	County	EDDY & LEA
Engineer	J.J.K. Drawn By	H's	10-11-76
SIPES, WILLIAMSON & AYCOCK, INC.	Ref. No.	6/1025	EXHIBIT NO. 20
Consulting Engineers	Midland-Houston, Texas		

E
(WEST)

No. 1A

No. 3

No. 2

No. 32

No. 29

No. 30

E'
(EAST)

| STRUCTURAL
CROSS SECTION E-E'				
WEST-EAST				
FIELD	VARIOUS	County	EDDY & LEA	State NEW MEXICO
Engineer	J.J.K. Drawn By	H's	Date 7-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.		Ref. No.	6/025	EXHIBIT NO. 21
Consulting Engineers		Midland - Houston, Texas		

F
(WEST)

No. 7

No. 10

No. 11

No. 12

No. 13

No. 14

No. 16

No. 17

No. 19

F'
(EAST)

A
(WEST)

| STRUCTURAL
CROSS SECTION A-A'
WEST-EAST				
FIELD	VARIOUS	County	EDDY & LEA	State NEW MEXICO
Engineer	J.J.K. Drwn By H's	Date	7-1-76	File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.		Ref. No.		
Consulting Engineers	Midland - Houston, Texas	6/025		EXHIBIT NO. 23

B
(WEST)

No. 7

No. 10

No. 11

No. 12

No. 13

No. 14

No. 16

No. 17

No. 19

B'
(EAST)

STRUCTURAL CROSS SECTION B-B'			
WEST-EAST			
FIELD	VARIOUS	County	EDDY & LEA
State	NEW MEXICO		
Engineer	J. J. K. Dorn, Jr.	Date	7-1-76
File	SANDIA		
SPECS.	WILLIAMSON & AYCOCK, INC.	Ref. No.	
Consulting Engineers	Midland - Houston, Texas	61025	EXHIBIT NO. 24

C
(NORTH)

No. 1

No. 3

No. 4

No. 5

No. 7

No. 10

No. 9

C'
(SOUTH)

CORINNE GRACE
LIVINGSTON RIDGE UNIT #1-Y

STRUCTURAL CROSS SECTION C-C'				
NORTH-SOUTH				
FIELD	VARIOUS	County	EDDY & LEA	State NEW MEXICO
Engineer	J.J.K. [Signature]	Drawn By	H's	Date 7-1-76 File SANDIA
SIPES, WILLIAMSON & AYCOCK, INC.		Ref. No.	6/1025	EXHIBIT NO 25
Consulting Engineers		Midland - Houston, Texas		

OWNERSHIP-LEASE MAP
Showing SW & A. Tract Nos.

FIELD	VARIOUS	County	EDDY & LEA	State	NEW MEXICO
Engineer	JJK	Drwn By	H's	Date	12-16-76
		File	SANDIA		
		Ref No	EXHIBIT 26		
		Consulting Engineers	Midland - Houston, Texas		