CHRISTI CRADDICK, CHAIRMAN
WAYNE CHRISTIAN, COMMISSIONER
JIM WRIGHT, COMMISSIONER

DANNY SORRELLS
DEPUTY EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
PAUL DUBOIS, P.E.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION
MEMORANDUM

FILED
3:52 pm, Apr 26, 2023
DOCKET SERVICES
RAILROAD COMMISSION OF TEXAS

TO: Docket Services, Hearings Division

FROM: Sean Avitt, Manager R.R. FOR S.A.
Injection-Storage Permits Unit

DATE: April 21, 2023

SUBJECT: Request for Hearing on Statewide Rule 95 and 97 Application for a New Permit to Create, Operate and Maintain an Underground Hydrocarbon Storage and Underground Gas Storage Facility (Form H-4)

OPERATOR:	PINTO ENERGY PTRS - STG 1, LLC (665753)
FIELD:	STRATTON RIDGE (86526001)
LEASE:	PINTO ENERGY PTRS - STG 1, LLC LEASE (00000)
WELL NOS.:	1, 2, 3, 10A, 10B, 10C, 10D, 11A, 11B, 11C, 11D, 13A, 13B, 13C, 13D, 14A, 14B, 14C, 14D, 15A, 15B, 15C, 15D, 16A, 16B, 16C, 16D, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30
DISTRICT:	03
COUNTY:	BRAZORIA
UIC TRACKING NO.:	55491

Attached are the original file and draft permit for the above-referenced application. The application was initially protested. This protest has been waived. A hearing is required pursuant to Statewide Rules 95(e)(4) and 97(e)(4) because this is a new application.

The applicant seeks a new permit for storage of liquid or liquefied hydrocarbons in underground salt caverns; and storage of gas in unground salt caverns. The Form H-4 application dated July 25, 2022, states that the wells are located approximately 3 miles east of Clute, Texas, at the coordinates given in Table 1 of the attached draft permit. The wells have not been drilled. The applicant proposes to create new caverns in the Stratton Ridge Salt Dome salt formation via solution mining and use the cavern for underground storage. The injection rates, injection pressures, subsurface depth intervals, and maximum cavern capacities are given in Tables 1 and 2 of the draft permit.

The names and addresses of the persons who should receive notice of the hearing are listed on the attached sheet.

Please furnish this office with a copy of the examiners' proposal for decision and the final order as each becomes available.

Staff does not intend to participate in this hearing at this time. Staff is available to provide additional information upon request.

Attachments

HEARING REQUEST INFORMATION

TYPE OF HEARING: Request for Hearing on Statewide Rule 95 Application for a Permit to Create, Operate and Maintain an Underground Hydrocarbon Storage Facility (Form H-4).

APPLICANT:	PINTO ENERGY PTRS - STG 1, LLC	OPERATOR NO.:	665753
DISTRICT:	03	COUNTY:	BRAZORIA
FIELD:	STRATTON RIDGE	FIELD NO.:	86526001
LEASE:	PINTO ENERGY PTRS - STG 1, LLC LEASE	LEASE/ID NO.:	00000
WELL NOS.:	1 1 ; 2 ; 3 ; 10A ; 10B ; 10C ; 10D ; 11A ; 11B ; 11C ; 11D ; 13A ; 13B ; 13C ; 13D ; 14A ; 14B ; 14C ; 14D ; 15A ; 15B ; 15C ; 15D ; 16A ; 16B ; 16C ; 16D ; 20 ; 21 ; 22 ; 23 ; 24 ; 25 ; 26 ; 27 ; 28 ; 29 ; 30	UIC TRACKING NO.:	55491

APPLICANT NAME AND ADDRESS:

SCOTT DOUGLASS & MCCONNICO LLP
OLGA KOBZAR
JOHN HICKS
303 COLORADO ST STE 2400
AUSTIN TX 78701

PINTO ENERGY PTRS - STG 1, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON TX 77098

PROTESTANT(S) NAME AND ADDRESS:
N/A - APPLICATION NOT PROTESTED

ADDITIONAL PERSONS TO WHOM NOTICE MUST BE MAILED:

THE DOW CHEMICAL COMPANY
2301 BRAZOSPORT BLVD
SALT DOME OPERATIONS BLDG S 201
FREEPORT, TX 77541-3257

FROST 4 INTERESTS LTD LLP REVOCABLE TRUST
2110 RIVER OAKS BLVD.
HOUSTON TX 77019

FREEPORT LNG DEVELOPMENT, LP
333 CLAY STREET, STE 5050
HOUSTON, TX 77002

CHEVRON
C/O CHEVRON SERVICES TAX DEPARTMENT
PO BOX 285
HOUSTON, TX 77001-0285

SHINTECH INC
3 GREENWAY PLZ STE 1150
HOUSTON, TX 77046-0325

BRAZORIA COUNTY MODELERS ASSN
C/O ERIK VALDEZ
140 BRAZOSPORT BLVD N
CLUTE, TX 77531-3702

THE DOW CHEMICAL COMPANY
2301 N BRAZOSPORT BLVD
FREEPORT, TX 77541

FROST MINERAL TRUST
C/O KANALY TRUST
PO BOX 13636
ARLINGTON, TX 76094-0636

FROST PROPERTIES LTD TRUST
OPERATIONS AMEGY BANK TRUSTEE
PO BOX 27767
HOUSTON, TX 77227-7767

INEOS USA CHOCOLATE BAYOU PLANT
PO BOX 1488
ALVIN, TX 77512-1488

COCKRELL INVESTMENT PARTNERS
3737 BUFFALO SPEEDWAY, SUITE 1100
HOUSTON, TEXAS 77098

THE DOW CHEMICAL COMPANY
C/O TAX DEPT TXINN APB FLOOR 4A 332 SH 332 E
LAKE JACKSON, TX 77566

FREEPORT LNG
333 CLAY ST # 5050
HOUSTON, TX 77002

DINO DUE
206 BIRDSALL ST
HOUSTON, TX 77007-8108

FROST FAMILY I LTD
5004 CEDAR ST
BELLAIRE, TX 77401-4009

63 PROPERTIES, LLC
PO BOX 3487
FREEPORT, TX 77542-1687

ELAINE S WHITE TRUST
2110 RIVER OAKS BLVD.
HOUSTON TX 77019

KINDER MORGAN TEJAS PIPELINE, LLC
1001 LOUISIANA STREET, STE 1000
HOUSTON, TX 77002

BP AMERICA PRODUCTION CO
502 WESTLAKE PARK BLVD
HOUSTON, TX 77079

MAGNOLIA PETROLEUM COMPANY
3811 TURTLE CREEK BLVD, SUITE 1900
DALLAS, TEXAS 75219-3811

JOYCE HUDMAN
BRAZORIA COUNTY CLERK
111 E. LOCUST STREET, SUITE 200
ANGLETON, TX. 77515

HARVEST FOR THE HUNGRY
2001 HOLCOMBE BLVD #3305
HOUSTON, TX 77030-4232

THE ALLAR COMPANY
735 ELM ST
GRAHAM, TX 76450

ALEX BORELL
ENGINEERING SPECIALIST,
FIELD OPERATIONS

JOE STASULLI
ASSISTANT DEPUTY DIRECTOR,
ADMINISTRATIVE COMPLIANCE

PAUL DUBOIS
ASSISTANT DIRECTOR,
TECHNICAL PERMITTING

CHRISTI CRADDICK, CHAIRMAN
WAYNE CHRISTIAN, COMMISSIONER
JIM WRIGHT, COMMISSIONER

DANNY SORRELLS
DEPUTY EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
PAUL DUBOIS, P.E.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

PERMIT TO CREATE, OPERATE AND MAINTAIN AN UNDERGROUND STORAGE FACILITY

ISSUED TO:

PINTO ENERGY PTRS - STG 1, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON TX 77098

In accordance with the provisions of 16 TAC § 3.95 and 16 TAC § 3.97, and in accordance with the original authority granted under Docket No. XXXXXXXXXX dated XXXXXXXXXX, PINTO ENERGY PTRS - STG 1, LLC is hereby authorized to create, operate and maintain an underground hydrocarbon storage facility designated as follows:

PINTO ENERGY PTRS - STG 1, LLC (665753)
PINTO ENERGY PTRS - STG 1, LLC LEASE (000000)
STRATTON RIDGE (86526001) Field
Facility Control No. 775
Brazoria County, Texas
District 03

(DRAFT PERMIT ONLY) Authority is granted to store liquid or liquefied hydrocarbons, natural gas, and other gaseous hydrocarbons or hydrocarbon products in solution-mined caverns within the STRATTON RIDGE SALT DOME through the wells identified herein, subject to the restrictions given in Table 1 below, and in accordance with the applicable provisions of the Texas Natural Resources Code, Texas Water Code, and the Railroad Commission of Texas' Rules Having Statewide General Application to Oil, Gas, and Geothermal Resource Operations Within the State of Texas (Statewide Rules) and subject to the following conditions:

1. The maximum permitted cavern capacities (total cavern size as measured by the most recent complete sonar caliper survey, not hydrocarbon storage volume), Underground Injection Control (UIC) Numbers, wellhead location coordinates, and type of authority granted to each well in this permit, shall be as specified in the following Tables 1 and 2:

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Table 1. Cavern Wellhead Locations, Capacities, and Types of Authority

Well No.	API No.	UIC No.	Cavern No.	Lease No.	Coordinates (NAD83)	Permitted Cavern Capacity (Million BBL)	RRC SWR Pursuant to Which Authority Granted*
1	03900000	placeholder-0.-05-27-78-04-61-72-75-81-64	1	00000	29.03728702, -95.3398979	12.0	97
2	03900000	placeholder-0.-17-68-43-13-51-68-64-59-2	2	00000	29.03716754, -95.3366286	12.0	97
3	03900000	placeholder-0.-97-04-37-09-73-77-66-86	3	00000	29.03556003, -95.3340156	12.0	97
10A	03900000	placeholder-0.-79-44-78-79-40-58-12-42	10	00000	29.03452578, -95.3505156	24.0	95
10B	03900000	placeholder-0.-33-81-60-76-38-70-24-53	10	00000	29.03449834, -95.3504154	24.0	95
10C	03900000	placeholder-0.-11-30-36-17-62-23-13-84-4	10	00000	29.03441144, -95.3503802	24.0	95
10D	03900000	placeholder-0.-86-43-73-17-25-84-69-09	10	00000	29.03443885, -95.3504804	24.0	95
11A	03900000	placeholder-0.-60-28-91-69-36-35-35-78	11	00000	29.03457904, -95.3474954	24.0	95
11B	03900000	placeholder-0.-15-20-18-88-93-39-75-05	11	00000	29.03449735, -95.3474466	24.0	95

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11C	03900000	placeholder-0.-22-67-28-57-01-79-66-97-4	11	00000	29.03441403, -95.3474916	24.0	95
11D	03900000	placeholder-0.-24-72-46-07-55-75-99-13-2	11	00000	29.03449572, -95.3475405	24.0	95
13A	03900000	placeholder-0.-58-38-49-23-32-89-90-81	13	00000	29.03177022, -95.3504527	24.0	95
13B	03900000	placeholder-0.-67-85-36-00-74-47-97-57	13	00000	29.03181313, -95.3503598	24.0	95
13C	03900000	placeholder-0.-62-44-97-10-96-11-00-49	13	00000	29.03177352, -95.350265	24.0	95
13D	03900000	placeholder-0.-83-07-06-61-37-88-78-93	13	00000	29.03173063, -95.3503579	24.0	95
14A	03900000	placeholder-0.-58-46-86-53-15-76-38-94	14	00000	29.03182348, -95.3474325	24.0	95
14B	03900000	placeholder-0.-77-26-93-45-17-51-40-14	14	00000	29.03174182, -95.3473837	24.0	95
14C	03900000	placeholder-0.-24-69-51-34-71-71-53-22-2	14	00000	29.0316585, -95.3474288	24.0	95
14D	03900000	placeholder-0.-52-86-53-67-59-56-12-82	14	00000	29.03174016, -95.3474776	24.0	95
15A	03900000	placeholder-0.-64-80-08-60-39-81-73-04	15	00000	29.02901466, -95.3503898	24.0	95

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15B	03900000	placeholder-0.-00-10-36-15-19-20-24-45-32-4	15	00000	29.02910274, -95.3503586	24.0	95
15C	03900000	placeholder-0.-95-11-12-76-63-33-71	15	00000	29.02913368, -95.3502597	24.0	95
15D	03900000	placeholder-0.-16-05-42-21-69-80-95-27-2	15	00000	29.02904557, -95.3502909	24.0	95
16A	03900000	placeholder-0.-90-37-78-65-17-40-99-05	16	00000	29.02906792, -95.3473697	24.0	95
16B	03900000	placeholder-0.-87-90-18-21-63-34-15-92	16	00000	29.02914958, -95.3474185	24.0	95
16C	03900000	placeholder-0.-18-09-06-84-48-99-07-23-8	16	00000	29.02923291, -95.3473734	24.0	95
16D	03900000	placeholder-0.-40-94-60-33-49-12-07-61	16	00000	29.02915124, -95.3473246	24.0	95
20	03900000	placeholder-0.-32-07-74-01-33-73-81-80-6	20	00000	29.03801943, -95.3451342	0.1	95
21	03900000	placeholder-0.-13-82-58-95-07-33-08-32-5	21	00000	29.03760697, -95.3451248	0.1	95
22	03900000	placeholder-0.-20-50-71-48-44-87-08-64-5	22	00000	29.03719451, -95.3451154	0.1	95
23	03900000	placeholder-0.-87-27-56-26-58-00-27-75	23	00000	29.03678202, -95.345106	0.1	95

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24	03900000	placeholder-0.-62-19-69-24-25-95-31-63	24	00000	29.03636956, -95.3450966	0.1	95
25	03900000	placeholder-0.-33-61-09-50-49-56-94-08	25	00000	29.03789296, -95.3445053	0.2	95
26	03900000	placeholder-0.-36-59-68-24-47-28-31-18	26	00000	29.037343, -95.3444928	0.2	95
27	03900000	placeholder-0.-30-28-64-20-68-48-20-62-5	27	00000	29.03679306, -95.3444803	0.2	95
28	03900000	placeholder-0.-63-50-92-88-25-78-81-01	28	00000	29.03624306, -95.3444677	0.2	95
29	03900000	placeholder-0.-85-70-85-98-14-58-72-14	29	00000	29.03707905, -95.3438608	0.2	95
30	03900000	placeholder-0.-90-20-73-77-42-73-04-26	30	00000	29.03652906, -95.3438482	0.2	95

a) * Full citation to SWRs identified in the column titled “RRC SWR Pursuant to Which Authority Granted*” of Table 1:

i. SWR 95 – 16 Texas Administrative Code §3.95, relating to hydrocarbon storage wells

ii. SWR 97 – 16 Texas Administrative Code §3.97, relating to gas storage wells

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Table 2. Cavern Operating Parameters

Well No.	API No.	UIC No.	Maximum Surface Injection Pressure for Liquid (PSIG)*	Maximum Surface Injection Pressure for Gas (PSIG)**	Maximum Liquid Daily Injection Volume (BBL/day)	Maximum Gas Daily Injection Volume (MCF/day)
1	03900000	placeholder-0.-05-27-78-04-61-72-75-81-64		2975.0		767000.0
2	03900000	placeholder-0.-17-68-43-13-51-68-64-59-2		2975.0		767000.0
3	03900000	placeholder-0.-97-04-37-09-73-77-66-86		2975.0		767000.0
10A	03900000	placeholder-0.-79-44-78-79-40-58-12-42	997.0		201600.0	
10B	03900000	placeholder-0.-33-81-60-76-38-70-24-53	997.0		115200.0	
10C	03900000	placeholder-0.-11-30-36-17-62-23-13-84-4	997.0		1152000.0	
10D	03900000	placeholder-0.-86-43-73-17-25-84-69-09	997.0		115200.0	
11A	03900000	placeholder-0.-60-28-91-69-36-35-35-78	997.0		201600.0	
11B	03900000	placeholder-0.-15-20-18-88-93-39-75-05	997.0		115200.0	

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11C	03900000	placeholder-0.-22-67-28-57-01-79-66-97-4	997.0		1152000.0	
11D	03900000	placeholder-0.-24-72-46-07-55-75-99-13-2	997.0		115200.0	
13A	03900000	placeholder-0.-58-38-49-23-32-89-90-81	997.0		201600.0	
13B	03900000	placeholder-0.-67-85-36-00-74-47-97-57	997.0		115200.0	
13C	03900000	placeholder-0.-62-44-97-10-96-11-00-49	997.0		1152000.0	
13D	03900000	placeholder-0.-83-07-06-61-37-88-78-93	997.0		115200.0	
14A	03900000	placeholder-0.-58-46-86-53-15-76-38-94	997.0		201600.0	
14B	03900000	placeholder-0.-77-26-93-45-17-51-40-14	997.0		115200.0	
14C	03900000	placeholder-0.-24-69-51-34-71-71-53-22-2	997.0		1152000.0	
14D	03900000	placeholder-0.-52-86-53-67-59-56-12-82	997.0		115200.0	
15A	03900000	placeholder-0.-64-80-08-60-39-81-73-04	997.0		201600.0	

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15B	03900000	placeholder-0.-00-10-36-15-19-20-24-45-32-4	997.0		115200.0	
15C	03900000	placeholder-0.-95-11-12-76-63-33-71	997.0		1152000.0	
15D	03900000	placeholder-0.-16-05-42-21-69-80-95-27-2	997.0		115200.0	
16A	03900000	placeholder-0.-90-37-78-65-17-40-99-05	997.0		201600.0	
16B	03900000	placeholder-0.-87-90-18-21-63-34-15-92	997.0		115200.0	
16C	03900000	placeholder-0.-18-09-06-84-48-99-07-23-8	997.0		1152000.0	
16D	03900000	placeholder-0.-40-94-60-33-49-12-07-61	997.0		115200.0	
20	03900000	placeholder-0.-32-07-74-01-33-73-81-80-6	1550.0		51500.0	
21	03900000	placeholder-0.-13-82-58-95-07-33-08-32-5	1550.0		51500.0	
22	03900000	placeholder-0.-20-50-71-48-44-87-08-64-5	1550.0		51500.0	
23	03900000	placeholder-0.-87-27-56-26-58-00-27-75	1550.0		51500.0	

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24	03900000	placeholder-0.-62-19-69-24-25-95-31-63	1550.0		51500.0	
25	03900000	placeholder-0.-33-61-09-50-49-56-94-08	1550.0		51500.0	
26	03900000	placeholder-0.-36-59-68-24-47-28-31-18	1550.0		51500.0	
27	03900000	placeholder-0.-30-28-64-20-68-48-20-62-5	1550.0		51500.0	
28	03900000	placeholder-0.-63-50-92-88-25-78-81-01	1550.0		51500.0	
29	03900000	placeholder-0.-85-70-85-98-14-58-72-14	1550.0		51500.0	
30	03900000	placeholder-0.-90-20-73-77-42-73-04-26	1550.0		51500.0	

a. Operating pressure. The operating pressure of each hydrocarbon storage well shall not exceed the permitted maximum allowable operating pressure for that well.

b. *For liquid storage wells, the maximum operating pressure at the shoe of the lowermost cemented casing shall not exceed 0.8 pounds per square inch per foot of depth.

c. **For gas storage wells, the maximum operating pressure at the casing seat shall not exceed 0.85 pounds per square inch per foot of depth.

Table 3. Other Special Conditions.

Well No.	API No.	Special Conditions
1	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to five (5) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**

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2	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to five (5) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
3	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to five (5) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
10A	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
10B	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
10C	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
10D	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
11A	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
11B	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
11C	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
11D	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**

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13A	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
13B	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
13C	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
13D	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
14A	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
14B	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
14C	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
14D	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
15A	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
15B	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**

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15C	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
15D	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
16A	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
16B	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
16C	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**
16D	03900000	**1. The time limitation provided by Permit Condition 13 is increased from two (2) years to ten (10) years. This time limitation may also be considered for further amendment upon presentation of appropriate supporting evidence.**

2. The maximum permitted cavern capacities specified in Paragraph 1, Table 1, may be amended upon approval of an application submitted in accordance with the applicable provisions of the Statewide Rules.

3. The maximum volume of liquid hydrocarbons stored in a cavern shall not displace the product-brine interface to within five feet of the known end of the brine tubing. However, should an operational need arise, the operator may displace the product-brine interface to within five feet of the known end of the brine string provided the operator notifies the District Office and/or Oil and Gas Division Director or Director's delegate prior to commencing such an operation and provides a description of the special precautions to be taken to insure the operation is conducted safely.

4. Each well/cavern in active hydrocarbon storage service shall be tested for mechanical integrity (MIT) at least once every five years in accordance with the applicable provisions of the Statewide Rules and subject to the following special conditions:

    a) All MITs for liquid storage wells shall be conducted by the nitrogen/brine interface observation method and run according to approved procedures without significant

modification unless prior approval of the proposed modification is obtained from the Oil and Gas Division Director or Director's delegate. Significant modifications, such as executing a hydrocarbon/brine interface test rather than a nitrogen/brine interface test, are not permitted without prior approval. However, minor modifications including, but not limited to, the test duration, wellhead pressures, interface elevation, development of a secondary product interface due to the accumulation of residual product from storage operations or other changes or occurrences necessary to conduct the typical type of test originally proposed are acceptable without prior approval.

a) The initial mechanical integrity test (MIT) for gas storage wells shall be conducted by the nitrogen/brine interface observation method and run according to approved procedures without significant modification unless prior approval of the proposed modification is obtained from the Oil and Gas Division Director or Director's delegate. Significant modifications are not permitted without prior approval. However, minor modifications including, but not limited to, the test duration, wellhead pressures, interface elevation, or other changes or occurrences necessary to conduct the typical type of test originally proposed are acceptable without prior approval.

b) The MIT required to be conducted at least once every five years for gas storage wells may be performed using pressure monitoring, subject to the requirements of Statewide Rule 97(o)(1)(C).

c) The Commission may grant up to a five-year extension on the regular casing inspection requirement if sufficient information is available to establish that a well has not experienced noticeable casing degradation that may increase the risk of casing failure. Information necessary to establish that a well has not experienced noticeable casing degradation must include at least two comparable casing inspection logs run at separate times over a period of not less than ten years and indicating that the condition of the casing has not noticeably changed during the interval of time between inspections. Information necessary to waive the regular casing inspection requirement must also establish that there is competent cement coverage throughout the caprock interval and into the next outer casing.

5. The capacity and configuration of each cavern in liquid or liquefied hydrocarbon storage service shall be determined by sonar survey at least once every ten (10) years in accordance with Statewide Rule 95(i).

a) The operator is required to monitor its storage operations and estimate the annual growth rate of every cavern in active hydrocarbon storage service. An operator of any cavern whose current capacity is 90% or more of its maximum permitted capacity or has increased by 3% or more within one year or less shall notify the Commission of the identity of the well/cavern and the reason for the increase in cavern volume. The notification shall be in writing and within 30 days of exceeding 90% of the maximum permitted capacity or 3% increase, whichever is sooner.

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6. The capacity and configuration of each cavern in brine production service shall be determined by sonar caliper survey conducted after withdrawal of approximately 3.0 million tons of salt since the previous survey. A copy of each sonar survey shall be submitted to the Austin Office within 30 days of completion of the survey.

7. The operator shall notify the District Office and Oil and Gas Division Director or Director's delegate prior to conducting repairs and/or workovers involving physical alterations to the cemented casing strings or wellhead assembly. Routine inspection and maintenance does not constitute a physical alteration.

    a) A Form W-2 shall be filed in duplicate with the District Office within 30 days after a change in the well completion. Provided, however, minor changes including, but not limited to, tubing replacement in wells in active hydrocarbon storage service without changing the nominal diameter or elevation by more than 50 feet or periodically removing sections of tubing from wells in brine mining service to adjust the mining interval, need not be reported.

8. The operator shall create and maintain records of the daily activity associated with the drilling, mining, completion, inspection, testing and/or workover of each solution-mined cavern(s) and/or well(s) entering such cavern. Such records shall include a complete and accurate description of all information related to the drilling, completion, inspection, testing and workover of any part of the well. The well includes but is not limited to the wellhead, casing, casing liners, cement, tubing, and cavern. These records shall include all information necessary to describe the historical and current condition of all parts of the well. Operators shall maintain the records for the life of the well. The Commission may inspect and/or direct the operator to submit copies of such records and the operator shall produce the records as soon as practicable upon request from Commission staff.

9. A subsidence-monitoring program of a nature approved by the Oil and Gas Division Director or Director's delegate shall be implemented that includes annual ground surface subsidence surveys. Following each survey, a report shall be filed with the Oil and Gas Division Director or Director's delegate that describes the results of each survey. The report shall identify those areas, if any, where there have been significant changes in the subsidence rates indicated by previous surveys and the report shall explain the reasons for the change and specify the maximum time interval before the next subsidence survey.

    a) If Commission staff determines that there has been a significant change in the subsidence rate or other anomalous condition(s) that may represent an increased potential risk of harm to the storage wells, caverns or environmental health and safety from ground movement whether indicated by the subsidence monitoring report or from any other means, then Commission staff may direct the operator to perform additional tests and submit additional information related to the anomalous subsidence or ground movement. Commission staff will seek the operator's agreement on the type of tests or information necessary to adequately assess the risks involved with the anomalous ground movement, but may require the operator to commence such tests and/or submit additional information within a specified time

frame.

10. The permit authorizes the operator to return to the caverns those minerals found to be naturally occurring within the salt which are deposited in permitted surface brine storage pit(s) and which are produced during the raw brine treatment process as well as the resident brine contained within the cavern developed through solution mining operations. This permit does not authorize the storage or disposal of any other waste substance within the cavern. This permit does not authorize the storage or disposal of any substance or material in any pit including any wholly or partially buried tank.

11. Any well authorized under this permit will be classified as a brine mining injection well, as that term is defined by Statewide Rule 81(a)(3), and must be permitted under Statewide Rule 81, if:

    a) The well is being used to inject fluid for the purpose of extracting brine by solution of a subsurface salt formation, even if the resulting brine is utilized for the purpose of withdrawing or injecting hydrocarbons or gas from the underground storage facility authorized under the same permit; and

    b) The well has not commenced injection of gas or liquid/liquefied hydrocarbon into an existing cavern within two (2) years of the date when injection of fluid first commenced.

12. The operator must submit a Form W-2 for any well being used to inject fluid for the purpose of extracting brine by solution of a subsurface salt formation as described in Item 11.a. The Form W-2 must be filed in accordance with the following conditions:

    a) The Form W-2 must state a well type of “Active UIC.”

    b) The Form W-2 must include remarks indicating the first date of injection for the purpose of extracting brine by solution of a subsurface salt formation.

    c) The Form W-2 shall be submitted to the Commission in accordance with the following schedule:

        i) If the initial Form W-2 has already been filed, the subject Form W-2 is due within 30 days of commencing injection of fluid for the purpose of extracting brine by solution of a subsurface salt formation.

        ii) If the initial Form W-2 has not been filed, the subject Form W-2 is due within 90 days after completion of the well.

13. Brine mining injection wells are ineligible for alternative monitoring status under Statewide Rule 95(o)(5), Statewide Rule 95(p)(2), Statewide Rule 97(o)(2), and/or Statewide Rule 97(p)(2).

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14. An out-of-service or permanently deactivated hydrocarbon storage well will be considered "inactive," and subject to the Commission's inactive well requirements, including, but not limited to, Statewide Rule 14(b)(2), if the well meets the definition of an inactive well found in Statewide Rule 15(a)(6) and Texas Natural Resources Code § 89.002(a)(12). Notwithstanding the foregoing, the operator may request approval of alternative monitoring for an out-of-service or permanently deactivated hydrocarbon storage well under the provisions of Statewide Rule 95(o)(5), Statewide Rule 95(p)(2), Statewide Rule 97(o)(2), and/or Statewide Rule 97(p)(2). Any such approved alternative monitoring shall be considered "other permitted activity" under Texas Natural Resources Code § 89.002(a)(12).

15. Sonar survey:

    a) The capacity and configuration of each cavern shall be determined by sonar caliper survey conducted after withdrawal of 3.0 million tons of salt since the previous survey. A copy of each sonar survey shall be submitted to the Austin Office within 30 days of completion of the survey.

    b) The operator shall submit along with the Annual Well Status Report (Form H-10H) a calculation of the mass of salt produced during the reporting period and the total mass of salt produced during the entire life of the cavern.

Provided further, that should it be determined that injected fluids are not confined to the cavity and well, then the permission given herein shall be suspended until the nature of the leak is determined and remedied.

DRAFT PERMIT ONLY [FUTURE PERMIT APPROVAL DATE].

_____
Sean Avitt, Manager
Injection-Storage Permits Unit

DRAFT

REVIEWED
By KenneyA at 10:09 am, Sep 12, 2022

REVIEWED
By KenneyA at 1:50 pm, Jan 03, 2023

REVIEWED
By KenneyA at 3:32 pm, Feb 21, 2023

FILED
RRC OF TEXAS
SEP 02 2022
UIC
AUSTIN

Return to:
DIRECTOR, Underground Injection Control
Oil and Gas Division
Railroad Commission of Texas
Capitol Station–P O. Drawer 12967
Austin, Texas 78711

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Form H-4
4/82

APPLICATION TO CREATE, OPERATE AND MAINTAIN AN UNDERGROUND HYDROCARBON STORAGE FACILITY

1 Operator Name: Pinto Energy Ptrs - STG 1, LLC
2 Operator No: 665753

3 Address (Street, City, State and Zip Code): 3737 Buffalo Speedway, Suite 1100, Houston, Texas 77098
4 RRC Dist: 03

5 Lease Name(s), if applicable: Pinto Energy Ptrs - STG 1, LLC Lease
6a Oil Lease No(s), if assigned: NA
6b Gas ID No(s), if assigned:

7. Field Name: Stratton Ridge
8 RRC Field No ,if assigned: 86526001
9 County: Brazoria

10. General Location
This facility will be 3 miles in a East direction from Clute (nearest post office or town)

11. [X] New Project [ ] Expansion Initial Authority Dated _____ by Special Order No. _____

12. Type of Structure: [X] domal salt [ ] bedded salt
13 Depth to Top of Caprock (ft): Varies: -1350 to -3000 MSL
14 Depth to Top of Salt (ft): Varies: -950 to -2600 MSL

15. Current Number of Cavities in Project: None
16 Number of Cavities in this Application: 20

17. Cavity Name and Well No.	18 Location (Sec.,Blk.,Survey) Distance from Survey Lines	19 Size and Capacity When Fully Leached: Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	20 Injection Rate daily (bbls): avg	max	21 Injection Pressure daily (psig): avg	max

SEE ATTACHED TABLE OF WELLS

22 List Underground Hydrocarbon Storage Facilities within One Mile of the Proposed Facility

1) Dow Chemical, The (227525) - Dow Fee (14753), Stevens Tract (11287), Brock (11376) Leases
2) Freeport LNG Development, L.P. (285141)- FLNG Gas Storage (25217) Lease
3) Ineos USA, LLC (424191) - Amoco Chemicals Company (10375) Lease
4) Ineos Chocolate Bayou P/L (424192) - Amoco Chemical Corporation (15713) Lease
5) Kinder Morgan Tejas Pipeline (463338) - Tejas Ship Channel Company (21467) Lease

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature

Thomas F Soriero Jr. — Name of Person (type or print)
Managing Director — Title
Telephone 713-209-7553 (Area Code / Number)
Date July 25, 2022

FOR RRC USE ONLY
55491
RGST 6192284 RCPT 173234 $19,000

APPLICANT MUST COMPLY WITH THE INSTRUCTIONS ON REVERSE SIDE (OVER)

RECEIVED
RRC OF TEXAS
SEP 01 2022
O & G
AUSTIN, TX

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC
FORM H-4: TABLE OF WELLS

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		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls)		daily (psig)	
					avg.	max.	avg.	max.
1 / 1	5,550' FEL & 5,238' FSL	3,750	9,000	12,000	52,000	86,000	2,000	2,798
2 / 2	4,506' FEL & 5,180' FSL	3,750	9,000	12,000	52,000	86,000	2,000	2,798
3 / 3	3,681' FEL & 4,581' FSL	3,750	9,000	12,000	52,000	86,000	2,000	2,798
10 / 10A	8,982' FEL & 4,279' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
10 / 10B	8,951' FEL & 4,269' FSL	2,250	9,000	Same as 10A	52,000	86,000	1,100	1,800
10 / 10C	8,940' FEL & 4,236' FSL	2,250	9,000	Same as 10A	52,000	86,000	1,100	1,800
10 / 10D	8,972' FEL & 4,247' FSL	2,250	9,000	Same as 10A	52,000	86,000	1,100	1,800
11 / 11A	8,017' FEL & 4,285' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
11 / 11B	8,002' FEL & 4,255' FSL	2,250	9,000	Same as 11A	52,000	86,000	1,100	1,800
11 / 11C	8,017' FEL & 4,225' FSL	2,250	9,000	Same as 11A	52,000	86,000	1,100	1,800
11 / 11D	8,032' FEL & 4,255' FSL	2,250	9,000	Same as 11A	52,000	86,000	1,100	1,800
13 / 13A	8,976' FEL & 3,276' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
13 / 13B	8,946' FEL & 3,292' FSL	2,250	9,000	Same as 13A	52,000	86,000	1,100	1,800
13 / 13C	8,916' FEL & 3,277' FSL	2,250	9,000	Same as 13A	52,000	86,000	1,100	1,800
13 / 13D	8,946' FEL & 3,262' FSL	2,250	9,000	Same as 13A	52,000	86,000	1,100	1,800

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		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls)		daily (psig)	
					avg.	max.	avg.	max.
14 / 14A	8,010' FEL & 3,283' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
14 / 14B	7,995' FEL & 3,253' FSL	2,250	9,000	Same as 14A	52,000	86,000	1,100	1,800
14 / 14C	8,010' FEL & 3,223' FSL	2,250	9,000	Same as 14A	52,000	86,000	1,100	1,800
14 / 14D	8,025' FEL & 3,253' FSL	2,250	9,000	Same as 14A	52,000	86,000	1,100	1,800
15 / 15A	8,969' FEL & 2,274' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
15 / 15B	8,958' FEL & 2,317' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
15 / 15C	8,927' FEL & 2,317' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
15 / 15D	8,937' FEL & 2,285' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
16 / 16A	8,000' FEL & 2,281' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
16 / 16B	8,019' FEL & 2,311' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
16 / 16C	8,004' FEL & 2,341' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
16 / 16D	7,989' FEL & 2,311' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
20	7,246' FEL & 5,526' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
21	7,245' FEL & 5,376' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
22	7,244' FEL & 5,226' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800

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		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls)		daily (psig)	
					avg.	max.	avg.	max.
23	7,243' FEL & 5,076' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
24	7,242' FEL & 4,926' FSL	2,250	4,000	100	12,000	26,000	1,100	1,800
25	7,045' FEL & 5,477' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
26	7,044' FEL & 5,278' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
27	7,043' FEL & 5,078' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
28	7,041' FEL & 4,877' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
29	6,843' FEL & 5,179' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
30	6,842' FEL & 4,979' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Return To:
DIRECTOR, Underground Injection Control
Oil and Gas Division
Railroad Commission of Texas
Capitol Station–P.O. Drawer 12967
Austin, Texas 78711

Form H-4
4/82

APPLICATION TO CREATE, OPERATE AND MAINTAIN
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1 Operator Name: Pinto Energy Ptrs - STG 1, LLC
2 Operator No: 665753
3 Address (Street, City, State and Zip Code): 3737 Buffalo Speedway, Suite 1100, Houston, Texas 77098
4 RRC Dist: 03
5 Lease Name(s), if applicable: Pinto Energy Ptrs - STG 1, LLC Lease
6a Oil Lease No(s), if assigned: NA
6b Gas ID No(s), if assigned:
7. Field Name: Stratton Ridge
8 RRC Field No.,if assigned: 86526001
9 County: Brazoria
10. General Location
This facility will be 3 miles in a East direction from Clute (nearest post office or town)
11. [X] New Project [ ] Expansion Initial Authority Dated _____ by Special Order No. _____
12. Type of Structure [X] domal salt [ ] bedded salt
13 Depth to Top of Caprock (ft): Varies: -1350 to -3000 MSL
14 Depth to Top of Salt (ft): Varies: -950 to -2600 MSL
15. Current Number of Cavities in Project: None
16 Number of Cavities in this Application: 20

17. Cavity Name and Well No.	18 Location (Sec.,Blk.,Survey) Distance from Survey Lines	19 Size and Capacity When Fully Leached			20 Injection Rate daily (bbls)		21 Injection Pressure daily (psig)	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	avg.	max	avg.	max

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5) Kinder Morgan Tejas Pipeline (463338) - Tejas Ship Channel Company (21487) Lease

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature

Thomas F Soriero Jr. — Name of Person (type or print)
Managing Director — Title
Telephone 713-209-7553 (Area Code / Number)
Date July 25, 2022

FOR RRC USE ONLY

APPLICANT MUST COMPLY WITH THE INSTRUCTIONS ON REVERSE SIDE (OVER)

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC
FORM H-4: TABLE OF WELLS

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15 / 15C	8,927' FEL & 2,317' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
15 / 15D	8,937' FEL & 2,285' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
16 / 16A	8,000' FEL & 2,281' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
16 / 16B	8,019' FEL & 2,311' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
16 / 16C	8,004' FEL & 2,341' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
16 / 16D	7,989' FEL & 2,311' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
20	7,246' FEL & 5,526' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
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17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls)		daily (psig)	
					avg.	max.	avg.	max.
23	7,243' FEL & 5,076' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
24	7,242' FEL & 4,926' FSL	2,250	4,000	100	12,000	26,000	1,100	1,800
25	7,045' FEL & 5,477' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
26	7,044' FEL & 5,278' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
27	7,043' FEL & 5,078' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
28	7,041' FEL & 4,877' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
29	6,843' FEL & 5,179' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
30	6,842' FEL & 4,979' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800

SCOTT
DOUGLASS
McCONNICO

Olga Kobzar
Direct Dial: 512.495.6354
okobzar@scottdoug.com

September 1, 2022

VIA HAND DELIVERY AND
E-MAIL: UIC_Permits@rrc.texas.gov
Attn: Sean Avitt, Manager, Injection-Storage Permits Unit
Railroad Commission of Texas
1701 N. Congress Avenue, 10th Floor
Austin, TX 78711

Re: Pinto Energy Ptrs - STG 1, LLC's Application for a Permit to Create, Operate, and Maintain an Underground Hydrocarbon Storage and Brine Mining Facility in accordance with Statewide Rules 81, 95, and 97; Stratton Ridge Salt Dome, Brazoria County, Texas

Dear Sean:

Pinto Energy Ptrs STG 1, LLC ("Pinto Energy") respectfully submits this Underground Hydrocarbon Storage Application for its Stratton Ridge Sale Dome in Brazoria County ("Application"). Pinto Energy seeks to create, operate, and maintain up to 38 wells in the Stratton Ridge sale dome, creating up to twenty solution-mined caverns to be converted to hydrocarbon storage service.

The Application packet filed with this letter contains the following materials:

1. Pinto Energy's Application;

2. RRC Central Records Filing Fee Payment Receipt.

Please do not hesitate to contact me or John Hicks with any questions or if you need any additional information. We look forward to working with you and your Staff.

4862-8517-7392

Best regards,



Olga Kobzar
John Hicks
Attorneys for Pinto Energy Ptrs – STG 1, LLC

Enclosures

PINTO ENERGY PTRS STG 1, LLC

Application for a Permit to Create, Operate, and Maintain an Underground Hydrocarbon Storage and Brine Mining Facility in accordance with Statewide Rules 81, 95, and 97

Stratton Ridge Salt Dome, Brazoria County, Texas

September 1, 2022

INSTRUCTIONS (H-4)

1. File the original application, including all attachments, with the Director of Underground Injection Control,P.O. Drawer 12967, Capitol Station, Austin, Texas 78711. File one copy of the application and its attachments with the appropriate District Office.

2. Attach a map with surveys marked showing the location and depth of all wells of public record within one-quarter (¼) mile radius of each facility well and areal limits of each storage cavity. For those wells which penetrate the top of the caprock, attach a tabulation of the wells showing the dates the wells were drilled and the present status of the wells. Attach plugging records for abandoned wells. If any nearby facilities include storage cavities that extend within one-quarter (¼) mile of the proposed facility, map and identify those facilities.

3. Describe the geology of the site. Include, for all zones penetrated by the storage well, the geological formation name, lithologic description, thickness, and any faults or fractures. Provide geologic cross sections drawn perpendicular to each other and extending a half mile beyond the limits of the storage cavities. Attach a copy of the electrical logs and other data used in drawing cross sections.

4. Outline step by step well completion procedures, including logging and casing testing. Describe each storage cavity well completion by diagrammatic sketch. Attach a tabulation of the casing and cementing program for each cavity well, including information on the type, size, weight, grade, and setting depth of all casing strings, number and location of centralizers, cementing technique, type and volume of cement, cement additives, and gel.

5. Describe the cavity development process, including the composition of displacement fluid, injection rates during cavity creation, cavity-boundary monitoring, method of circulation, and use of blanket liquids.

6. Attach a list of the type and composition of the liquids to be stored in each cavity.

7. Describe abandonment procedures and provide diagrammatic sketches for plugging of facility wells. State composition of the fluid to be used to fill cavities.

8. Attach a letter from the Texas Department of Water Resources, P.O. Box 13087, Capitol Station, Austin Texas 78711, stating the depth to which usable-quality ground water occurs in the area of the proposed facility.

9. (a) Attach a plat of leases or owned properties showing the proposed areal limits of the proposed storage cavity facility and the ownership of property or leases adjacent to the proposed facility.

   (b)(1) Send copies of the application, including both sides of the form, to the surface owners located over the facility and to adjacent offset operators or leaseholders. Attach a signed statement indicating the date the copies of the application were mailed or delivered and the names and addresses of the persons to whom copies were sent.

   (2) Attach an affidavit of publication signed by the publisher that notice of the application has been published for three consecutive days in a newspaper of general circulation for the county where the facility will be located. Notice instructions and forms may be obtained from the Commission's Austin Office or the District Offices.

   (c) A public hearing will be held for all new storage facilities after the Commission provides notice of the hearing to all persons listed pursuant to Section 9(b) (1) above. No public hearing will be held on applications for expansions of existing facilities unless a protest is received requesting a public hearing. Any such request for a public hearing shall be in writing and contain: (1) the name, mailing address, and phone number of the person making the request; and (2) a brief description of how the protestant would be adversly affected by the granting of the application. If the Commission determines that a valid protest has been received, or that a public hearing would be in the public interest, a hearing will be held after the issuance of proper and timely notice of the hearing by the Commission. If no protest is received within fifteen (15) days of the date of publication or receipt in Austin of the application, the application may be processed administratively.

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I. Seismic Review

II. EXECUTIVE SUMMARY

A. Introduction:

Pinto Energy Ptrs – STG 1, LLC ("PEP") is seeking permission to operate up to 38 wells in the Stratton Ridge salt dome for the purposes of producing and selling brine, thereby creating up to twenty (20) solution-mined caverns to be converted to hydrocarbon storage service. All the wells and caverns will be located on a 774.68-acre tract owned by PEP that overlies the southeastern quarter of the Stratton Ridge salt dome in southern Brazoria County, **Figure 1.**[1]

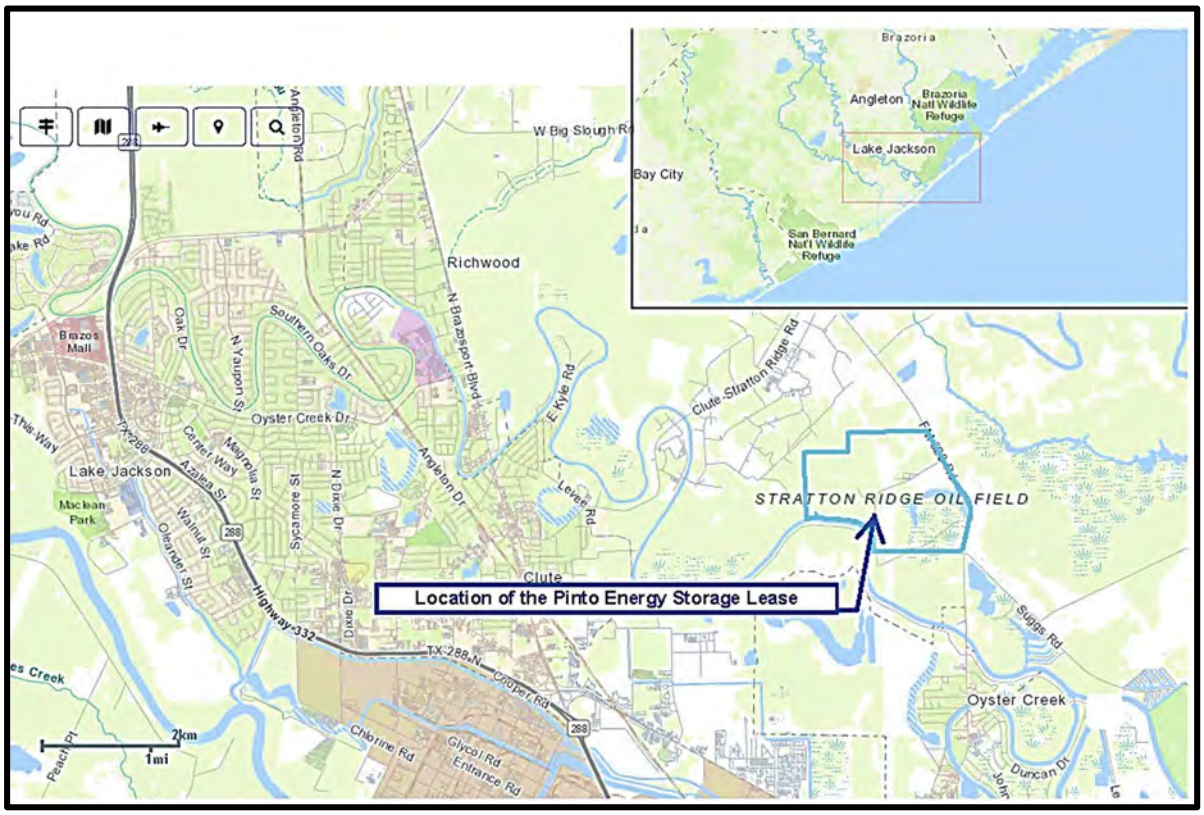


Figure 1: General Location of Pinto Energy Storage Lease

[1] Map generated from the Brazoria County Appraisal District web site, https://www.brazoriacad.org/mapping.html

There will be up to six (6) caverns designed for crude oil storage, eleven (11) caverns designed for natural gas liquid (NGL) or liquefied petroleum gas (LPG) storage, and three (3) caverns for storing natural gas or other gaseous substance in accordance with Statewide Rules 81, 95, and 97. The crude oil storage caverns will be accessed by up to four separate well bores per cavern such that the total number of wells to permitted under the subject application will be 38 – 24 for crude oil storage operations, 11 for NGL/LPG, and 3 for natural gas storage.

PEP is developing this brine mining, hydrocarbon liquids, and natural gas storage facility complex to provide saturated brine for nearby chemical plant feedstock and to provide storage services for hydrocarbon liquids, natural gas, or other gaseous substances. This facility is being developed in response to local demand for brine feedstock and growing demand for hydrocarbon storage in Texas markets. The multi-modal storage capability (crude, LPG/NGL, and natural gas) is intended to augment other existing and proposed energy infrastructure projects in the region. The location is well-positioned relative to import/export facilities along the Texas Gulf Coast, including Freeport, Houston/Galveston, Port Lavaca, and Corpus Christi. The location will have access to the Katy Hub, Oasis Pipeline and other new natural gas infrastructure projects delivering Permian Basin gas to the Texas Gulf Coast that is expected to spur demand for additional gas storage capability provided by the project of up to 21.5 Bcf/d. In addition, the project will be near the existing and proposed crude oil import/export projects in the area and other crude oil pipeline systems such as the DOE 40” pipeline, Enbridge Ingleside Energy Center, and Enterprise Sea Port Oil Terminal (SPOT). **Figures 2 – 5.**

PEP intends to minimize disposal of the brine extracted by underground injection via brine supply contracts with nearby petrochemical and chlor-alkali refining operations. The sequence and time frame for development of the individual wells subject to this application is dependent upon the demand for brine produced from the proposed facility.

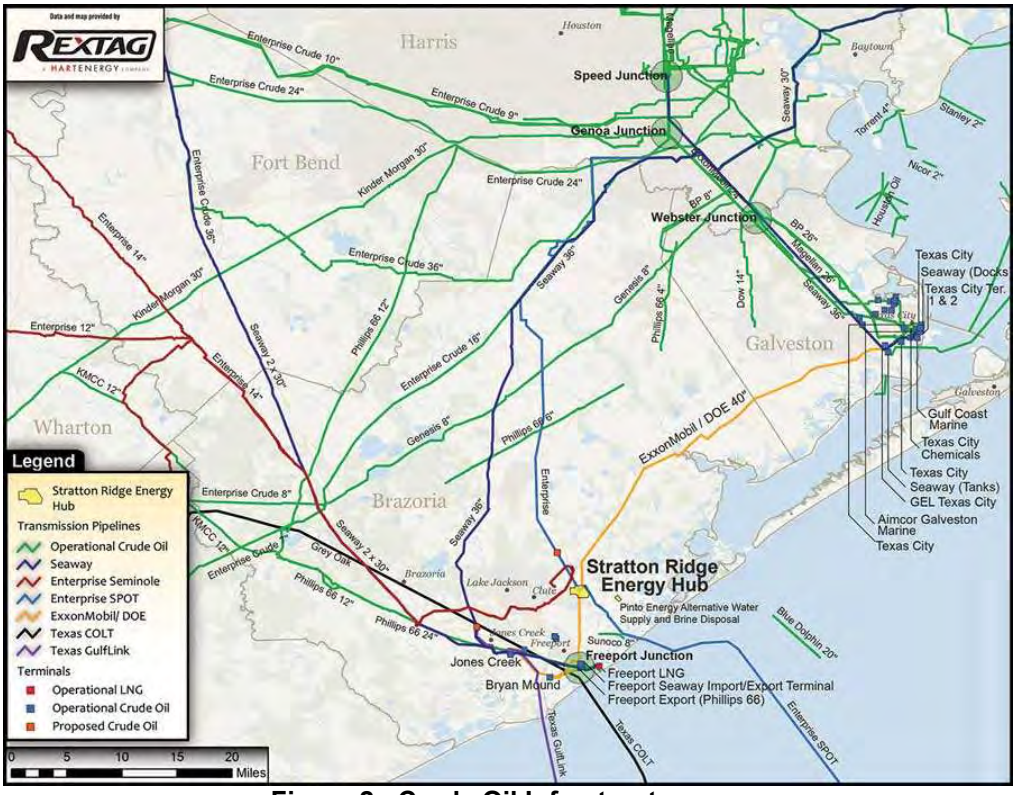


Figure 2: Crude Oil Infrastructure

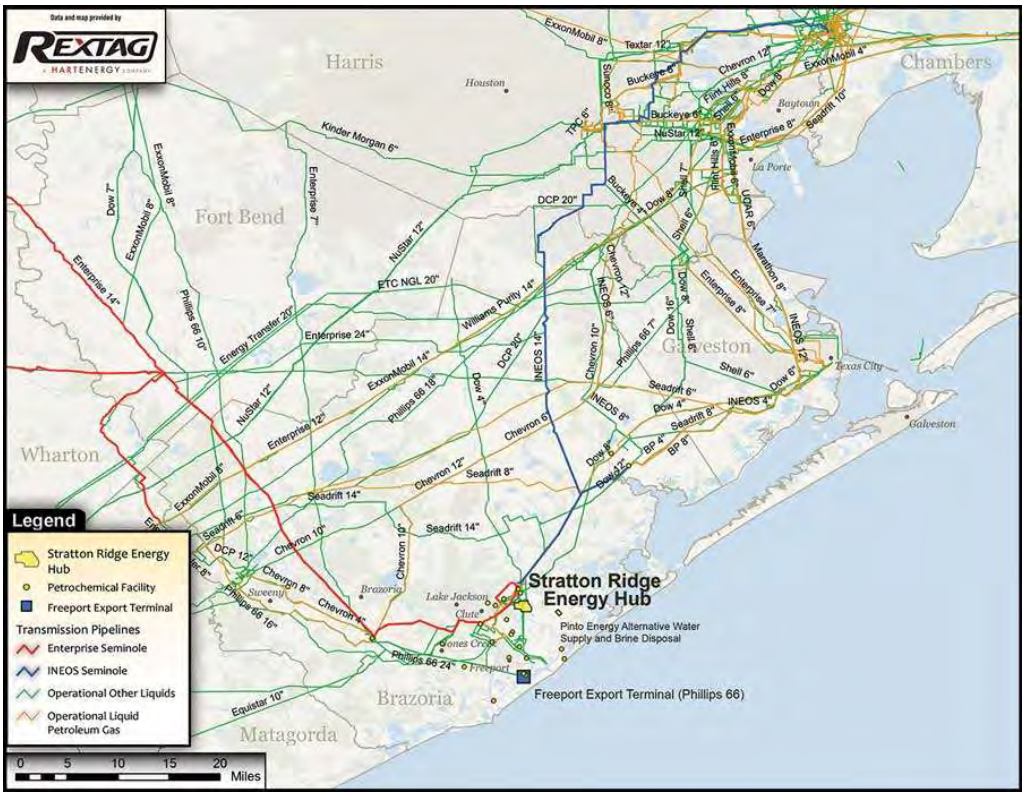


Figure 3: NGL/LPG Infrastructure



Figure 4: Natural Gas Infrastructure

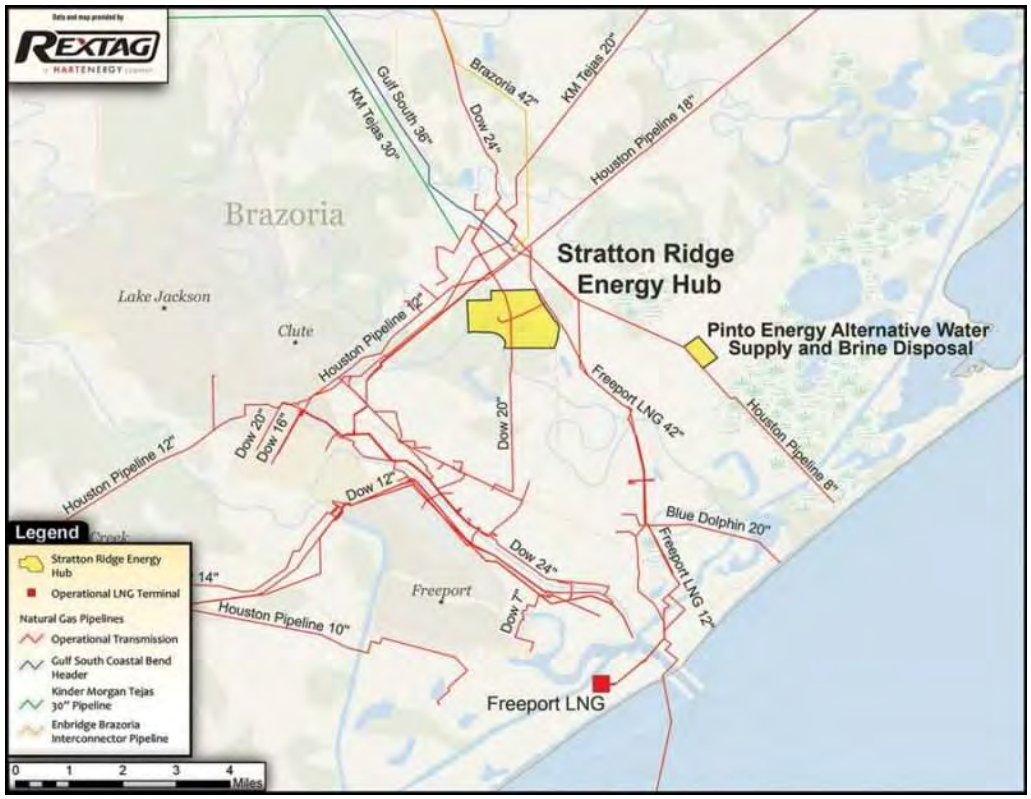


Figure 5: Natural Gas Infrastructure, Close Up

B. Existing Salt Cavern Operations at Stratton Ridge

The Stratton Ridge Dome currently hosts existing cavern operations conducted by five different RRC-designated operators with a total of 94 wells accessing 70 caverns permitted for either brine mining, NGL/LPG storage, and/or natural gas storage, including:

- The Dow Chemical Company – operates a total of 81 wells, accessing some 57 caverns, and authorized for brine mining, NGL/LPG, and/or natural gas storage
- Ineos USA, LLC – operates eight (8) wells/caverns authorized for NGL/LPG storage
- Ineos Chocolate Bayou P/L, LLC – operates two (2) NGL/LPG storage wells/caverns.
- Kinder Morgan Tejas Pipeline, LLC – operates two (2) gas storage wells/caverns
- Freeport LNG Development, L.P. – operates one (1) gas storage well/cavern

C. Project Plan Summary and Facility Overview

In general, the Project Plan includes:

- Acquiring all required regulatory authority, including but not limited to:
    - Authorization pursuant to Statewide Rules 81, 95, and 97 for up to six crude oil storage caverns utilizing twenty-four (24 wells), eleven single-well liquid hydrocarbon storage caverns, and three (3) natural gas (or other gaseous substance) storage cavern wells where the brine generated during solution-mining will primarily be delivered to local petrochemical facilities.
    - Authorization for two multi-million-barrel brine storage ponds
    - Authorization for two off-dome brine disposal wells
- Phased drilling and completion of up to thirty-eight (38) cavern wells.

- Initial wells to ultimately be utilized for crude oil storage will be drilled to a total depth of 9,000 feet to enable development of saturated brine from the outset.
- The same is true for each of the NGL/LPG and gas storage wells.
- The early stages of solution-mining will render the deepest third of more of each borehole inaccessible for future storage as it will become filled with insoluble material. The primary storage space will be crated within the mid-range of the proposed 9,000 – ft total depth.

- Construction of a 6,000 gallons per minute (gpm) solution-mining facility and pipeline system for raw water delivery and brine take-away to neighboring petrochemical facilities.
- Construction of a 1.6 million barrels per day (bpd) crude/ product and brine pumping station.
- Construction of 8,000 Hp electric driven gas compression facility with designed injection and withdrawal capacity of 350 and 750 MMcf/d respectively.
- Construction of interconnections on the property to crude and liquids pipelines.
- Connection of proposed gas storage facility to the FLNG gas pipeline system.
- Construction of two brackish water supply wells.
- Construction of brine ponds sufficient to operate the crude and liquids storage.

These facilities are located on lands which are owned by PEP and are located within a 774.68-acre tract of land shown by Appendix D: Area of Review Map of PEP Property. The proposed caverns will initially be constructed within the depth interval between 2,250 ft. and 9,000 ft. in height at the completion of drilling operations. As each cavern is solution mined, the sump will fill with insoluble materials and the cavern height will decrease. It is estimated[2] that the final height of the crude oil caverns will be approximately 2,500 ft with an average cavern diameter of approximately 180 ft. The liquids caverns will be less than 1,000 ft. tall and be 50 to 75 ft. in diameter

[2] Estimates are based on “Salgas” solution mining simulations, which include an estimate of retained insoluble material, which leads to uncertainty in the exact height of each type (Brine, Oil Storage, LPG Storage or Natural Gas Storage) of cavern development.

depending on customer requirements while the gas caverns will be approximately 750 ft. tall and 250 ft. in diameter.

This facility complex will include all necessary crude/product and brine pumps, gas compression, dehydration, metering, solution mining facilities and other associated equipment required to complete and operate the different storage operations as well as the brine production facility. The natural gas storage operation will be an intrastate gas facility.

D. Project Development Plan

The project area, PEP's 774.68-acre fee land, can be visualized as segregated into three operational areas differentiated by how the cavities will ultimately be operated, crude versus NGL/LPG versus natural gas storage. As currently envisioned, project development will begin with two proposed brine production wells (PEP No. 13A and No.14A) that will initiate development of the first two crude oil storage caverns. Subsequent drilling of the 13B, 13C and 13D wells (and 14B, 14C and 14D) nearby each initial well to augment the solution-mining plan and then the final two additional cavern reentry wells to enable crude oil movement up to 62,500 bbls per hour (43,750 gal/min, 1.5 mmbpd) per cavern.

The second area of development is anticipated to be the three natural gas storage caverns in the eastern area of the PEP Fee tract. This area will be drilled as demand for gas storage develops or as brine production moves from the converted crude oil caverns and as the initial development schedule, provides brine for the petrochemical customers.

The third area of development lies in between the crude oil and gas storage areas. These caverns are intended to be smaller, 100,000 to 200,000 bbl caverns storing multiple hydrocarbon liquids for local demand.

The first proposed cavern well (PEP Well No.13A) is located approximately 1,700' west of the FLNG Well No.1A natural gas storage cavern and approximately 800 ft. east northeast of the Dow Fee Well No. 18. The initial primary objective of the PEP No.13A is to produce saturated brine while also acquiring detailed technical

information on the salt interval at this specific location. Following the evaluation of the completed well, it will be made ready for solution mining operations. During the drilling operations, PEP will confirm the presence of high-quality salt throughout the vertical section of wellbore length (2,250'-9,000'). The interval planned for crude oil storage development is between 2,250 and 3,850'. The drilling and recovery of multiple cores of salt in the interval, a complete suite of open hole electric logs from TD to surface casing, and inspection / chemical and mechanical testing of the recovered core will be the method utilized to confirm the acceptability of the salt formation for brine production as well a crude oil storage cavern development. Upon confirmation of well core and wireline log results of the well's suitability for brine supply and storage operations, the well will be equipped for brine production. Each subsequent well (B, C, and D wells) at each crude oil cavern site will be logged and correlated with the initial well (A well) to maintain quality assurance in brine production and crude oil cavern development.

The natural gas cavern wells will each be cored as described above for the crude oil "A" wells, while the initial NGL/LPG cavern well will be cored with subsequent wells logged and correlated to the cored well[3].

III. GEOLOGIC DESCRIPTION

A. Regional Geologic Setting

PEP's site is in the southwestern part of the Houston Embayment, within the Eastern Coastal Plain of the Texas Gulf Coast. The surface and shallow subsurface of the project area consists of Holocene or Pleistocene age subsurface sediments with regional dip gently to the southeast. The Holocene deposits generally consist of alluvial, deltaic, beach, bay, and marsh deposits that are underlain by Pleistocene age deltaic and alluvial deposits to depths of several thousand feet below ground level. Pleistocene formations typically consist of interlayered clays and sands. The

[3] Coring additional wells will occur if any anomalous finding occurs in the initial cores or the electric logs.

uppermost Pleistocene formation directly underlying recent Holocene sediments in the Stratton Ridge area is the Beaumont Formation. **Figure 6**[4].

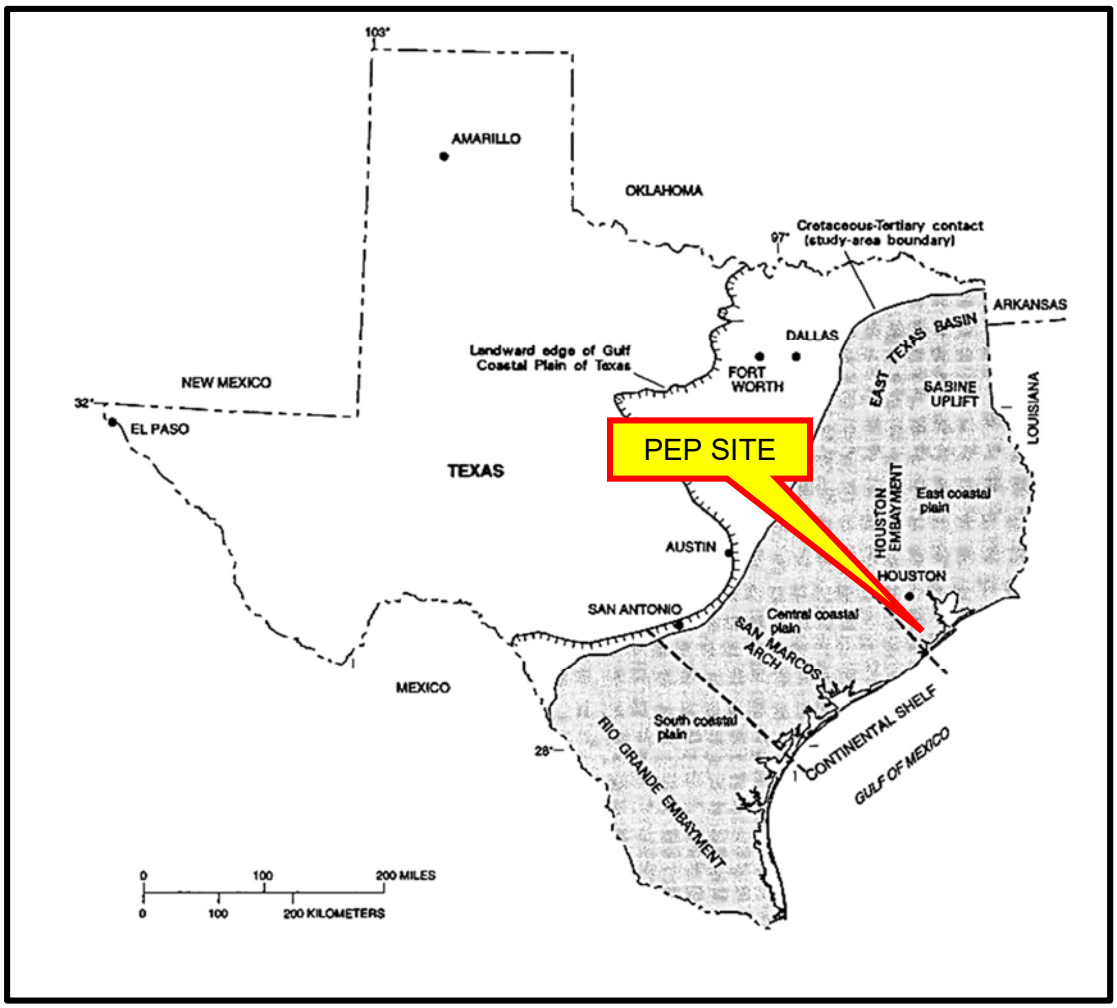


Figure 6: Regional Geologic Setting

The Stratton Ridge salt dome is approximately 50 miles south-southwest of Houston, 5 miles north of Freeport. The salt dome is a large, shallow-piercement type dome that has been used extensively by industry for brining operations and for the storage of liquid hydrocarbons, refined products, and natural gas. The Stratton Ridge salt dome was discovered in 1913. It is roughly oval in outline, approximately two miles by one-and-a-half miles in lateral extent, with its long axis oriented southwest to

[4] Baker, E. T. Jr., Stratigraphic Nomenclature and Geologic Sections of the Gulf Coast Plain of Texas, USGS Open File Report 94-461, 1995

northeast. The shape of the dome was initially defined by several hundred oil and gas wells, which have been drilled on the flanks since approximately 1922, when commercial hydrocarbon production was first established. The flank wells are concentrated along the southern and northeastern flanks of the dome, where most of the commercial hydrocarbon production was obtained between the 1950s and the 1970s. Numerous shallow and cavern-related wells have drilled over the top of the diapir. No sulfur mining has been conducted at this dome.

Understanding of the shape and topography of the Stratton Ridge domal structure has more recently been refined by seismic surveys.

The Stratton Ridge salt diapir originates in the Jurassic Louann Salt formation and penetrates all formations throughout the Stratigraphic Column to within approximately 850 feet of the surface. **Figure 7[5].**

ERA	Period		Epoch	Age (M.Y.)	Stratigraphic Unit	Dominant Lithology	Hydrogeologic Unit	
Cenozoic	Quaternary		Holocene	0.02	Alluvium	sand	Alluvium/Beaumont Aquifer	Gulf Coast Aquifer
			Pleistocene		Beaumont	sand		
	Tertiary	Neogene	Pliocene	1.8 5.3	Lissie/Alta Loma	sand	Chicot Aquifer	
					Willis	sand		
			Miocene		Goliad	sand	Evangeline Aquifer	
					Fleming/Lagarto	mud	Burkeville Aquitard	
		Paleogene	Oligocene	23.9	Fleming/Oakville	sand	Jasper Aquifer	
					Catahoula/Frio/Anahuac	sand and mud	aquitard	
			Eocene	33.9	Vicksburg	mud	aquitard	
					Jackson	sand and mud	Yegua-Jackson Aquifer	
					Yegua	sand and mud		
					Sparta	sand	Queen City-Sparta Aquifer	
					Queen City	sand and mud		
					Reklaw	mud	aquitard	
			Paleocene	55.8	Upper Wilcox/Carrizo	sand	Carrizo-Wilcox Aquifer	
					Middle Wilcox	mud		
					Lower Wilcox/Simsboro	sand and mud		
				65.5	Midway	mud	aquitard	
Mesozoic	Cretaceous	Upper				carbonate		
		Lower		145.5	Edwards	carbonate	Edwards (BFZ) Aquifer	
	Jurassic	Upper				carbonate		
		Middle		201.6	Louann salt	evaporite	salt domes	
	Triassic							

Figure 7: Simplified Stratigraphic Column

[5] Young, et al, Final Report – Updating the Hydrogeologic Framework for the Northern Portion of the Gulf Coast Aquifer, TWDB – June 2012

B. Groundwater Resources

The Gulf Coast Aquifer is classified into five hydro-geologic units from youngest to oldest: Chicot Aquifer, Evangeline Aquifer, Burkeville confining unit, Jasper Aquifer, and the Catahoula confining unit. At the PEP site, the Chicot and Evangeline aquifers can produce usable groundwater. The sediments of the Gulf Coast Aquifer dip southeastward towards the Gulf of Mexico at approximately 15 to 20 feet per mile at the Pinto Energy property. The Stratton Ridge salt dome influences the structure of the Chicot and Evangeline aquifers. In general, the sand in the Chicot Aquifer across the Pinto Energy property thickens to the southeast away from the Stratton Ridge salt dome. The sand ranges in thickness from approximately 715 feet in the western portion of the property to nearly 800 feet in the southeastern portion of the property. PEP expects to develop the Chicot Aquifer and/or Evangeline Aquifer between 900 and 1,400 feet to supply moderate to large quantities of brackish groundwater as a source of mining water. Two wells are planned in the southeastern portion of the PEP property that are estimated to supply approximately 1,500 gpm of brackish water suitable for solution mining.

C. Structure of the Stratton Ridge Salt Dome

The caprock present at Stratton Ridge occurs at a minimum subsea depth of about 850 feet and is several hundred feet thick; limestone, gypsum, and anhydrite facies are all reported. A structure contour map showing the geometry of the top of caprock is shown by **Figure 8**[6].

The Stratton Ridge dome is generally oval in plan-view but characterized by two areas with markedly different vertical profiles. In the western portion, constituting roughly two-thirds of the dome area, caprock is above an elevation of 1500 ft, subsea, and the overall crest is relatively flat with elevations ranging of approximately 1100 to 1000 ft, subsea. The shallowest documented caprock is at –840 ft, in this area. Whereas the

[6] Lord, A. S. et al, Geologic Technical Assessment of the Stratton Ridge Salt Dome, Texas for Potential Expansion of the U.S. Strategic Petroleum Reserve, Sandia National Labratories,SAND2006-7159, November 2006.

eastern third of the dome is dominated by a large depression. This depression is separated from the elevated western portion of the salt stock by a relatively sharp, more-or-less north–south structural relief of roughly 1000 vertical feet. The deepest caprock occurs within the depression with 1000-plus feet below the base of the pronounced offset between these two lobes of the salt dome. The eastern margin, or "rim", of the basin is at approximately this same subsea elevation.

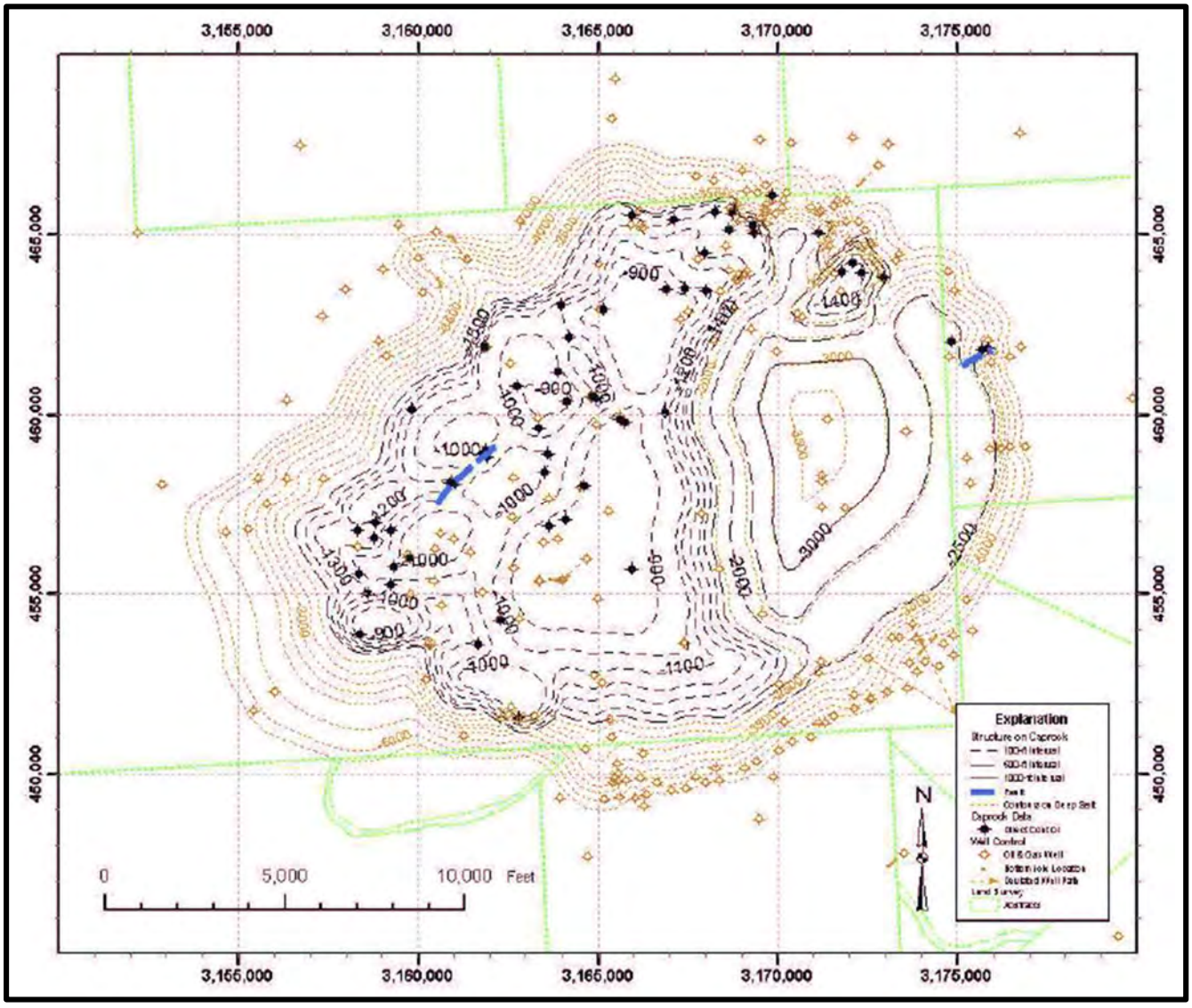


Figure 8: Structure on Top of the Caprock

The structural contour of the underlying salt closely mirrors that of the top of the caprock. **Figure 9**[7]**.**

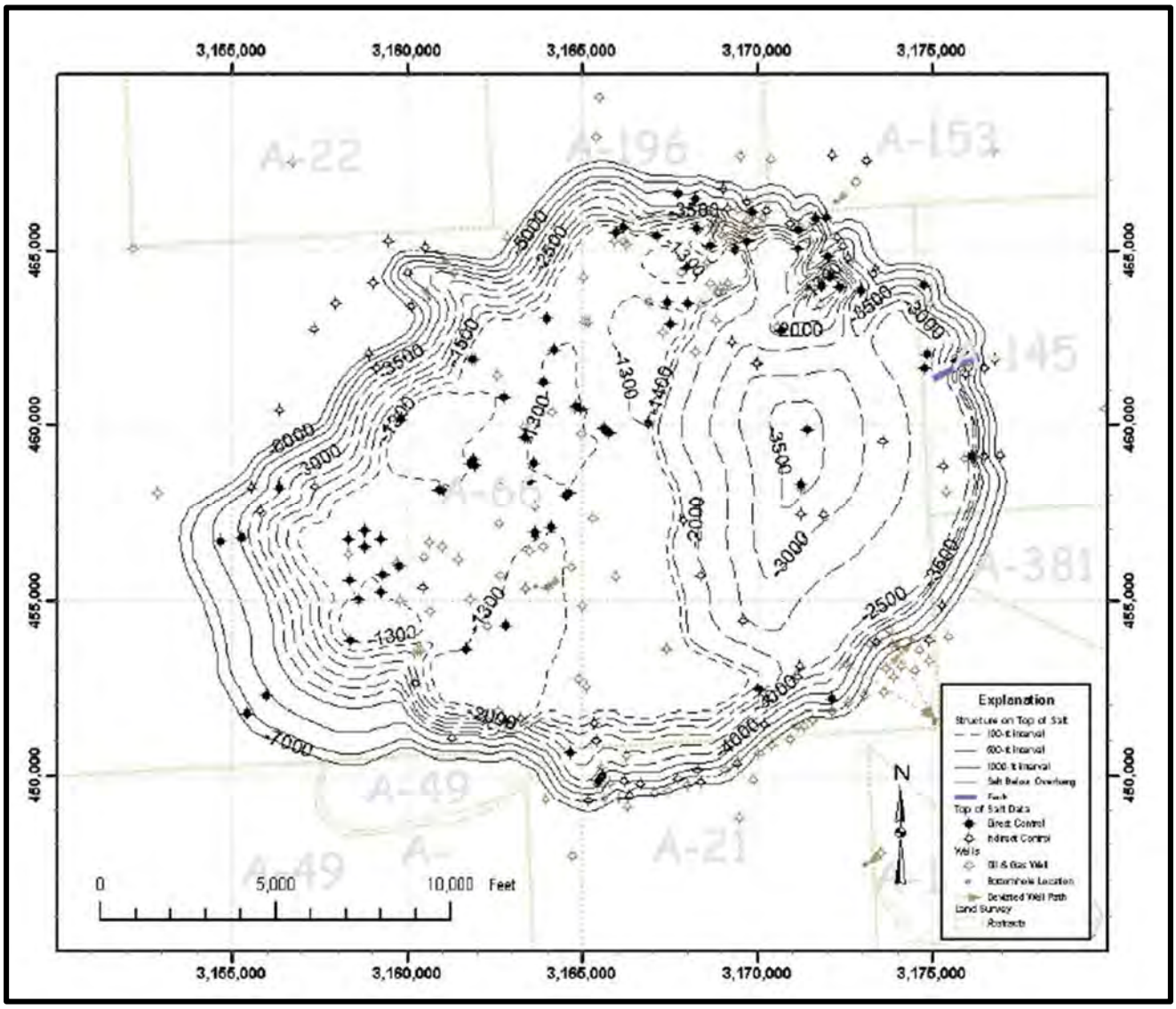


Figure 9: Structure on Top of the Salt

Figure 10 shows where the boundaries of the PEP facility are with respect to the underlying salt structure.

[7] *Id.*

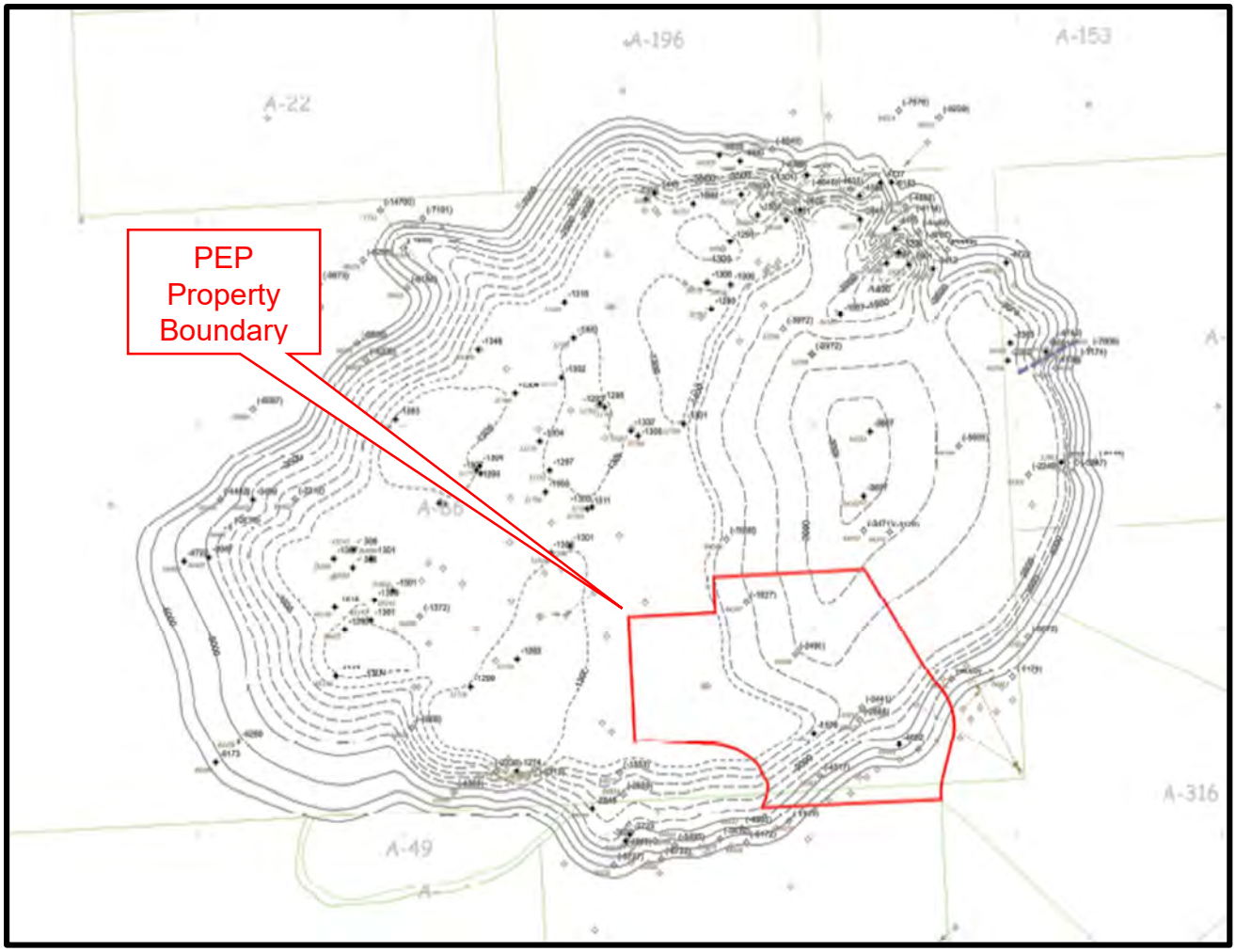


Figure 10: PEP Property and Structure on Top of the Salt

In lieu of stratigraphic structural cross sections using well log correlations, the results of 2-D seismic survey lines A – E traversing the project area are located by **Figure 11** and contained in Appendix A.

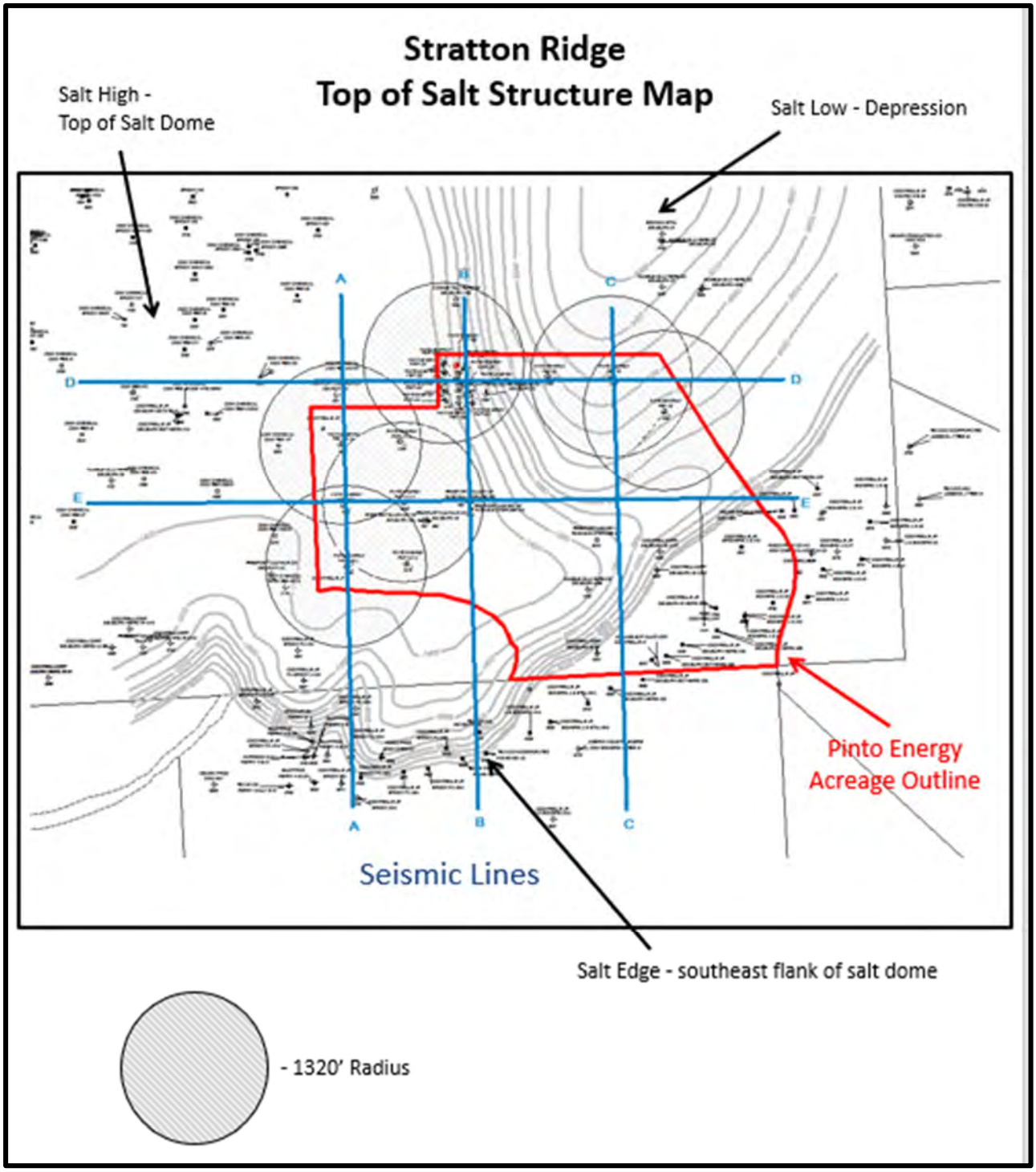


Figure 11: PEP Property, Top of the Salt, Seismic Survey Lines A-E in Appendix A

IV. WELL DRILLING, LOGGING, AND COMPLETION PROCEDURES

PEP will drill and complete all wells to prevent brine, oil, LPG or natural gas from escaping to the surface or into subsurface / freshwater strata, or otherwise escaping and causing waste or endangering public safety or the environment. All the brine production and storage wells will have at least two casing strings cemented into the salt formation at least 200 feet below the top of salt. Sufficient cement will be used to fill the annular space outside each casing string from the casing shoe to the ground surface. PEP will report the manner of initial completion and recompletion of each well in accordance with Statewide Rule 16 after each well is completed, before solution mining to create the cavern begins, and then upon conversion to storage service or as otherwise required. The proposed cavern wellhead configuration is shown in Wellhead Drawing Attachment.

A. Cavern Well Drilling and Casing Procedures

The initial development of all caverns in the project will result from a saturated brine supply operation. All initial wells[8] on the property are standardized to 16" production strings regardless of the depth to the top of salt or the interval to be developed. The varying depth to top of the main salt body affords the opportunity to utilize different areas within the project most efficiently by separating the areas of shallower salt for brine production with potential conversion to oil or other liquid hydrocarbon storage while the deeper areas of the dome are looked upon as better served as brine supply wells with conversion to natural gas storage. In all cases, two strings of casing will be set into the salt, and hydrocarbon storage will be developed utilizing a 100 ft chimney while potential natural gas caverns will be developed utilizing a 200 ft chimney below the production casing shoe.

The basic design criteria for the final cemented casing string selection is based on a solution mining rate of 2,350 gpm. Casing strength selection for brine, oil and LPG is based on a 0.80 maximum pressure gradient. The maximum operating pressure for

[8] The conversion of the western most brine wells to oil storage caverns will entail drilling three new wells with 30" production casing as indicated in the permit application.

natural gas cavern is based on a gradient of 0.85 psi/ft of depth to the last cemented casing string.

The following descriptions of the drilling program use estimated geological tops while the final cemented casing will be dictated by data derived from drilling into the salt dome at each well location:

1. Gas Storage Wells No. 1, 2, and 3:

Well Nos. 1, 2 and 3 (brine production to gas storage) are anticipated to encounter salt at approximately 3,000 ft BGL. The drilling/casing program is summarized as follows (depths are estimated):

- Install Conductor – Drive 36" conductor pipe to approximately 100' (drive to resistance).
- Install Surface Casing (30")
  - Install 24" annular blowout preventer.
  - Drill 17-1/2" pilot hole to 905' for surface casing[9].
  - Run open hole logs; triple combo, GR-MSFL-Sonic.
  - Open hole to 34" for surface casing.
  - Run caliper log.
  - Run 30" surface casing and cement to surface.
  - Run CBL
- Install First Salt Casing (24")[10]
  - Install 24" annular blowout preventer.
  - Drill 17-1/2" pilot hole to 3,255'[11] for the isolation pipe.
  - Run open hole logs; triple combo, GR-MSFL-Sonic
  - Open hole to 28" for surface isolation pipe.
  - Run caliper log.
  - Run 24" casing and cement to surface.
  - Run CBL
- Install Final Cemented String (16")
  - Install 24" annular blowout preventer.
  - Drill 17-1/2" pilot hole to 3,755'
  - Run open hole logs.
  - Open hole to 22" for final isolation pipe.
  - Run caliper log.
  - Run directional survey.

[9] Actual depth set by TRC Groundwater Protection Determination, GW-2.
[10] Provides opportunity for an extra string should caprock require isolation.
[11] Drilled 250 ft into the top of the salt formation.

- Run 16” final cemented string to 3,750’ tested by external pressure at joint and cement to surface.
- After allowing cement to set for a minimum of 72 hrs, pressure test casing to 1,800 psig at shoe.
- Drill out shoe and test to .85 psig/ft gradient. Run CBL
- Drill 12-1/4” pilot hole to first core point (2,280 ft) and take one 30 ft 4” core.
- Drill 12-1/4” hole and take cores at 4,550 ft, 5,550 ft and at 8,500’.
- Open hole to 24” from 16” shoe to 9,000’.

o Install Hanging Strings
- Run 13-3/8” outer hanging string to 5,250’.
- Install and test wellhead hanger.
- Run 8 5/8” inner hanging string to 8,975”.
- Complete wellhead installation

o Rig down and move off location.

Casing / Tubing Summary Gas Storage Wells	Diameter (in)	Depth (ft)	Grade	Weight (lbs/ft)	Cement Type (sks)
Conductor	36	100	B	154.48	NA
Surface Casing	30	750	X-42	118.76	Standard (1,618)
First Salt String	24	1,500	X-42	122.42	Standard (5,064)
Final Cemented Casing	16	2,250	N-80	118	Premium (7,185)
Outer Hanging String	13-3/8	4,650	N-80	72	NA
Inside Hanging String	8-5/8	8,950	N-80	40	NA

Table 1: Casing/Tubing Summary for Gas Storage Wells

2. Crude Storage Wells No. 10A, 11A, 13A, 14A, 15A, and 16A:

Well Nos. 10A, 11A, 13A, 14A, 15A and 16A (brine production to crude storage) should encounter salt at approximately 1,350 ft BGL. The drilling/casing program is summarized as follows (depths are estimated):

o Install Conductor – Drive 36” conductor pipe to approximately 100’ (drive to resistance).
o Install Surface Casing (30”)

        - Install 24” annular blowout preventer.
        - Drill 17-1/2” pilot hole to 755’ for surface casing.
        - Run open hole logs; triple combo, GR-MSFL-Sonic.
        - Open hole to 34” for surface casing.
        - Run caliper log.
        - Run 30” surface casing and cement to surface.
        - Run CBL
    - Install First Salt Casing (24”)
        - Install 24” annular blowout preventer.
        - Drill 17-1/2” pilot hole to 1,505’[12] for the isolation pipe.
        - Run open hole logs; triple combo, GR-MSFL-Sonic
        - Open hole to 28” for surface isolation pipe.
        - Run caliper log.
        - Run 24” casing and cement to surface.
        - Run CBL
    - Install Final Cemented String (16”)
        - Install 24” annular blowout preventer.
        - Drill 17-1/2” pilot hole to 2,255’
        - Run open hole logs.
        - Open hole to 22” for final isolation pipe.
        - Run caliper log.
        - Run directional survey.
        - Run 16” final cemented string to 2,250’ tested by external pressure at joint and cement to surface.
        - After allowing cement to set for a minimum of 72 hrs, pressure test casing to 1,800 psig at shoe.
        - Drill out shoe and test to .80 psig/ft gradient. Run CBL
        - Drill 12-1/4” pilot hole to first core point (2,280 ft) and take one 30 ft 4” core.
        - Drill 12-1/4” hole and take cores at 4,550 ft, 5,550 ft and at 8,500’.
        - Open hole to 24” from 16” shoe to 9,000’.
    - Install Hanging Strings
        - Run 13-3/8” outer hanging string to 5,250’.
        - Install and test wellhead hanger.
        - Run 8 5/8” inner hanging string to 8,975”.
        - Complete wellhead installation
    - Rig down and move off location.

[12] Drilled 250 ft into the top of the salt formation.

Casing/Tubing/Cement Summary Initial 16" Well for Oil Storage Caverns	Diameter (in)	Depth (ft)	Grade	Weight (lbs/ft)	Cement Type (sks)
Conductor	36	100	B	154.48	NA
Surface Casing	30	750	X-42	118.76	Standard (1,321)
First Salt String	24	1,500	X-42	122.42	Standard (2,435)
Final Cemented Casing	16	2,250	N-80	118	Premium (4,172)
Outer Hanging String	13-3/8	4,650	K-55	68	NA
Inside Hanging String	8-5/8	8,950	N-80	40	NA

Table 2: Casing/Tubing Summary for 16" Crude Oil Storage Wells "A"

3. Crude Storage Wells No. 10, 11, 13, 14, 15, and 16 – B, C, and D:

Additional wells drilled to facilitate brine production and cavern development of the largest proposed caverns on the site, the "B, C, and D" wells, will be equipped with larger 30" diameter final cemented casing.

- Install Conductor – Drive 48" conductor pipe to approximately 75' (resistance).
- Install Surface Casing (42")
  - Install 42" hydril blowout preventer.
  - Drill 17-1/2" pilot hole to 755' for surface casing
  - Run open hole logs; triple combo, GR-MSFL-Sonic.
  - Open hole for surface casing.
  - Run caliper log.
  - Run 42" surface casing and cement to surface.
  - Run CBL
- Install First Salt Casing (36")
  - Install 36" blowout preventer.
  - Drill 17-1/2" pilot hole to 1505' for the isolation pipe.
  - Run open hole logs; triple combo, GR-MSFL-Sonic
  - Open hole for surface isolation pipe.
  - Run caliper log.
  - Run 36" casing and cement to surface.
  - Run CBL

- Install Final Cemented String (30")
  - Install 30" blowout preventer.
  - Drill 17-1/2" pilot hole to 2,255'.
  - Run open hole logs.
  - Open the hole to 30" from the casing shoe to 2,255'for final isolation pipe.
  - Run caliper log.
  - Run directional survey.
  - Run 30" final cemented string to 2,250' tested by external pressure at joint and cement to surface.
  - After allowing cement to set for a minimum of 72 hrs, pressure test casing to 1,800 psig at shoe.
  - Drill out shoe and test to .80 psig/ft gradient. Run CBL
  - Drill 17-1/2" hole to 4,400'.[13]
  - Open the hole to 24" from 30" shoe to 4,400'.
- Install Hanging Strings
  - Run 10-5/8" outer string to 3,950'.
  - Install and test wellhead hanger.
  - Run 8 5/8" inner string to 4,375'.
- Rig down and move off location.

Casing/Tubing/Cement Summary **30" Well for Oil Storage Caverns**	**Diameter** **(in)**	**Depth** **(ft)**	**Grade**	**Weight** **(lbs/ft)**	**Cement Type** **(sks)**
Conductor	48	75	B	206.56	NA
Surface Casing	42	700	X-42	180.52	Standard (2,778)
First Salt String	36	1,400	X-42	154.48	Standard (6,424)
Final Cemented Casing	30	2,250	X-52	157.68	Premium (5,614)
Outer Hanging String	10-5/8	3,950	K-55	54.5	NA
Inside Hanging String	8 5/8"	4,375	N-80	40	NA

Table 3: Casing/Tubing Summary for 30" Crude Oil Storage Wells No. B, C, and D

[13] The second well at each location, the "C" well will be drilled to 3,850 ft and solution mined together with the initial brine well. The "B" and "D" wells will be drilled to 2,500 ft in the salt and washed into the cavern as described in Section VI of this filing.

4. NGL/LPG Storage Wells No. 20 through 30:

The casing points for proposed Wells No. 20 through 30 (brine production to NGL/LPG storage) are the most difficult to predict but are anticipated to encounter salt at approximately 2,000 ft BGL.

- Install Conductor – Drive 30” conductor pipe to approximately 100’.
- Install Surface Casing (26”)
  - Install 20” blowout preventer.
  - Drill 17-1/2” pilot hole to 705’ for surface casing.
  - Run open hole logs; triple combo, GR-MSFL-Sonic.
  - Open hole to 30” for surface casing.
  - Run caliper log.
  - Run 26” surface casing and cement to surface.
  - Run CBL
- Install First Salt Casing (20”)
  - Install 20” blowout preventer.
  - Drill 17-1/2” pilot hole to 2, 105’ for the isolation pipe.
  - Run open hole logs; triple combo, GR-MSFL-Sonic
  - Open hole to 25” for surface isolation pipe.
  - Run caliper log.
  - Run 20” casing and cement to surface.
  - Run CBL
  -
- Install Final Cemented String (13 3/8”)
  - Install 20” blowout preventer.
  - Drill 17-1/2” pilot hole to 2,255’
  - Run open hole logs.
  - Open hole to 19” for final isolation pipe.
  - Run caliper log.
  - Run directional survey.
  - Run 13 3/8” final cemented string to 2,250’ tested by external pressure at joint and cement to surface.
  - After allowing cement to set for a minimum of 72 hrs, pressure test casing to 1,800 psig at shoe.
  - Drill out shoe and test to .80 psig/ft gradient. Run CBL
  - Drill 12-1/4” pilot hole to first core point (2,280 ft) and take one 30 ft 4” core.
  - Drill 12-1/4” hole and take cores at 3,000 ft, and 3,850 ft.
  - Open hole to 24” from 13 3/8” shoe to 4,000 ft.
- Install Hanging Strings
  - Run 10-5/8” outer string to 2,950 ft.
  - Install and test wellhead hanger.
  - Run 7” inner string to 3,975 ft.

- Rig down and move off location.

Casing/Tubing/Cement Summary NGL/LPG Storage Wells	Diameter (in)	Depth (ft)	Grade	Weight (lbs/ft)	Cement Type (sks)
Conductor	30	100	B	157.7	NA
Surface Casing	26	700	X-42	128	Standard (1,211)
First Salt String	20	2,100	X-42	97.9	Standard (3,369)
Final Cemented Production Casing	13 3/8	2,250	X-52	68	Premium (2,718)
Outer Hanging String	10-5/8	2,950	K-55	54.5	NA
Inside Hanging String	7	3,975	N-80	26	NA

Table 4: Casing/Tubing Summary for NGL/LPG Storage Wells No. 20 – 30

B. Logging Program

The following program presents general steps for logging of all cavern wells. The program description is provided for use as a general guideline. Actual conditions encountered during the drilling and completion process will dictate the actual intervals logged and other specific program procedures and tools used.

RUN 1: Prior to installing surface casing, TD to base of drive pipe: Induction / SFL / Sonic / GR / caliper.

RUN 2: Prior to installation of intermediate casing, TD to base of surface casing: Induction / SFL / Sonic / GR / SP / Caliper.

RUN 3: Prior to installation of final cemented casing, TD to base of intermediate casing: Dual Laterolog / Density Compensated and Neutron, w/Sonic / Natural GR-Spectral log / Casing Inspection – Pipe Analysis Log.

RUN 4: TD to base of the final cemented casing shoe: Density Compensated and Neutron, w/ Sonic / Natural GR-Spectral log

Other logging:

- Caliper survey after final hole-opener runs.
- Temperature log of each cemented casing for top of cement if necessary.
- Cement bond log in final cemented casing after a minimum of 72 hours (WOC).
- Noise log may be required if possible leak detected.
- Neutron Interface Survey after filling each outer annulus with solution mining blanket material. Interface Survey – Confirm the depth of the blanket interface.

C. Coring Program

This coring program description is intended for use as a general guideline. Actual conditions encountered during the drilling and completion process will dictate the actual intervals cored and specific program procedures.

The coring program for the first cavern well is planned to be cored at several intervals to collect information relating to purity of brine production, volume of insoluble material, physical-chemical and mechanical properties of the salt. After the cores have been tested, electric logs will be closely correlated with the core data for future correlation to nearby wells.

PEP will core the initial well (“A” wells) at each location for the crude oil cavern development with subsequent wells (“B”, “C” and “D” wells) correlated to the core with well log data. The initial well in the liquid hydrocarbon storage area (wells 20-30) will be cored as will the first among the gas cavern wells (wells 1, 2, and 3). Similar to the crude wells, subsequent NGL/LPG and Gas Storage wells will be logged and correlated to the cored wells unless findings dictate that additional coring is prudent.

1. Core Analysis Program

The cores will be laboratory tested for mineral constituents, tensile, uniaxial and triaxial compression and long-term creep characteristics. After the cores have been

tested, the electric logs will be correlated with the core data, and a finite element analysis (geo-mechanical simulation) will be performed to determine the following:

- Verification of the maximum pressure that will prevent fracturing of the salt and migration of brine.
- Verification of the minimum pressure that will prevent creep and closure of the brine productive caverns.
- Predict subsidence over the project life of the storage operations.
- Predict the effect of the solution mining on the walls and roof of the caverns over the life of the solution mining activities.
- Determine the mechanical properties of the pillar between brining caverns over the life of the project.

a) Physical-chemical and mineralogical analysis:

Complete physio-chemical and mineralogical analysis in order to identify and quantify any significant components and minerals:

- Chlorides (simple and complex) Halite, Sylvite, Carnalite
- Sulfates: Polyhalite, Anhydrite
- Clay minerals of different types
- Silicate minerals

b) Geomechanical Analysis:

- On each interval, the following analysis will be performed:
- Three (3) uniaxial compression tests
- Three (3) triaxial compression tests
- Three (3) creep rate measurements under confined pressure and bottom hole temperature.

The results of the laboratory testing will be used to normalize the geomechanical properties logging conducted earlier in the drilling operations.

V. SOLUTION MINING PROGRAM

PEP will produce brine and develop caverns with 16” and 13 3/8” production strings. Natural gas storage caverns will be constructed with casing shoes set at 3,750 ft (well numbers 1, 2 and 3) all using 400 x 400 ft well sites. Crude Oil Storage caverns will have the 16” “A” well and subsequent 30” B, C and D well casings set at 2250 ft BGL as depicted in the well diagrams. The brine to liquid hydrocarbon storage wells (wells 20-30) will have 13 3/8” production casing. *See* Wellbore Schematic Diagrams in Appendix C.

This application contemplates two potential brine sales options resulting in different solution mining practice. The first method anticipates a brine customer on day one willing to ramp up brine deliveries. This will eliminate the need for brine disposal as PEP can solution mine the 16” production casing wells with 13 3/8” x 8 5/8” hanging strings in deep salt wells resulting in saturated brine at the beginning of operations. Subsequent wells will cascade under-saturated brine into the initial well, maintaining sales grade brine while introducing new well bores to the operation. The 13 3/8” production strings will be solution mined with 10 5/8” x 7” tubing strings and will also require cascade operations to achieve saturated brine sales.

The initial 16” well will produce saturated brine (96%) on day one in direct circulation at a rate of 275 to 300 gpm for the first year. Then a work-over to change the tubing configuration and operate in reverse circulation at 1,750 to 2,000 gpm for 6 months resulting in the creation of approximately 2.4 mmbbs of space within the depth interval from 3,800 to 2,360 ft. Then the mining rate would increase to 2,350 gpm and continue to develop brine supply for an additional 9 years to a diameter of 300 ft.. At the end of that 10-year period, the cavern could be converted to a sweetening cavern or to a large crude oil or product storage cavern utilizing the shallower portion of the cavity.

The alternative brine sales option requires a minimum volume of 1500 gpm of saturated brine to initiate sales. This is achieved after 12 months of direct circulation at rates from 450 gpm to 1500 gpm, creating a sump, then developing approximately

1.6 mmbbls of space before converting to reverse circulation to develop saturated brine for the remaining 11 years of cavern life.

Both alternatives require water supply and the second approach requires brine disposal for a limited time. PEP expects to develop two or more brackish water wells and one brine disposal well on the lease off the southeastern boundary of the salt dome.

A more detailed description of the step-by-step solution mining program is as follows:

1. Install wellhead spool and run 8-5/8" or 7" wash casing to approximately 50 feet off TD (9,000 ft in the initial crude cavern wells ("A" wells) and gas wells, and 4,000 feet in the LPG cavern wells). Install top wellhead spool and connect water and brine lines.

2. Inject nitrogen blanket down the blanket string annulus to the bottom of the blanket casing.

3. Commence solution mining by direct circulation, injecting fresh water down the inner string casing, displacing brine up the inner and outer hanging string annulus. Solution mining during the first week should be at reduced rates of approximately 200-275 gpm. While solution mining the sump, direct circulation must be maintained continuously to prevent plugging the wash casing with insoluble material. If a power outage occurs, the freshwater injection pumps must be restarted as soon as possible to re-establish circulation. Modeling indicates 96% brine saturation will be achieved at the outset of solution mining.

4. Maintain a daily log of the following data:

    a. Volume of fresh water injected.
    b. Fresh water injection pressure.
    c. Fresh water temperature.
    d. Brine pressure.
    e. Brine temperature.
    f. Brine salinity.

g. Blanket volumes injected / withdrawn.

h. Blanket volume in the well.

i. Blanket pressure.

j. Calculated daily cavern volume solution mined.

k. Cumulative cavern volume solution mined.

5. Maintain blanket at the bottom of the 13 3/8” or 10 5/8” casing. At a minimum, test weekly for potassium in the produced brine to confirm marketability (and to assist in proper development of cavern). A potassium baseline will be established, and additional blanket material will be injected if there is a significant change in baseline. If major increases in the potassium content are observed for more than two weeks, the solution mining operations will be shut down and a sonar survey will be run. In addition, density logs will be run periodically to verify the proper roof development.

6. Continue solution mining by direct circulation for approximately one year, or until plugging occurs. If no plugging occurs, proceed to reverse circulation operations.

7. Plugging of the wash string will be indicated by a sudden increase in the injection pressure or automatic shutdown of the raw water pumps due to overpressure. If plugging is suspected, a sinker bar should be run on a wireline inside the 8-5/8” or 7” wash casing to tag the top of the plug. If the plug is very high in the 8-5/8”, this would result in a considerable loss in cavern interval. It may be necessary to rig up small workover rig, run tubing inside the 8-5/8” or 7” and clean out the insoluble plug.

8. If the plug is not very high in the blanket string annulus or water injection cannot be resumed after a clean out, the 8-5/8” or 7” wash casing must either be raised or perforated.

9. After the first year of solution mining, transfer all blanket fluid from the well to the blanket tank.

10. Rig up workover rig and pull 8-5/8” wash casing out of the hole.

11. Run sonar survey of the cavern sump and core.
12. Lower the 10 5/8” blanket casing (depth to be determined).
13. Run the 8-5/8” or 7” (the exact setting depth for both casing strings will depend on cavern shape).
14. Inject blanket to the cavern roof depth. Estimate blanket volume to cover cavern roof.
15. Verify blanket depth with interface log.
16. Commence solution mining by reverse circulation, injection of fresh water down 13 3/8” or 10 5/8” x 8-5/8” or 7” annulus, displacing brine up the inner hanging casing.
17. Periodically verify blanket depth with interface log. Add blanket as required.
18. Periodically switch to direct circulation for brief duration to flush inner hanging casing.
19. After approximately 12 months of solution mining, stop mining. Transfer all blanket fluid from the well to the storage tank.
20. Rig up workover rig and pull the inner hanging casing out of the hole.
21. Pull the 13 3/8” or 10 5/8” blanket casing up inside the production casing.
22. Run second sonar survey of cavern.
23. Lower the blanket casing (depth to be determined).
24. Run the inner hanging casing (the exact setting depths will depend on cavern shape).
25. Inject blanket to cavern roof depth.
26. Verify blanket depth with interface log.
27. Resume solution mining by reverse circulation.
28. Periodically verify blanket and flush 8-5/8” casing as described in Steps 18 and 19.

29. After cumulative approximately 11 years of solution mining, stop mining for final sonar and either P&A or continue long term observation of the well and cavern behavoir.

30. Conversion of the well from solution mining to product storage can occur at any time, which will require a MIT, and commencement of de-brining operations.

VI. CAVERN DEVELOPMENT PROCESS

The first crude oil cavern location will be at Wells No. 13A and 14A identified. The first well on each crude oil cavern location will be the 16" wellbore ("A" wells) and drilled to a total depth of 9,000 ft. The first 30" production well ("C" wells), 70 ft west of the "A" well, will have the 30" casing set at 2,250 ft and the salt will be drilled out to 6,500 ft with solution mining designed to coalesce with initial cavern developed by the "A" well during the later stages of the first period of reverse circulation (months 24-30). The remaining two 30" production wells at each crude oil cavern location ("B" and "D") will also have 30" production casing strings set at 2,250 ft and drilled to at least 2,450 ft to intersect the growing cavern[14]. The 26" brine strings will be installed afterward, depending on timing of the other wells and cavern construction progress. The "B" and "D" wells will be drilled between the "A" and "C" roughly 30 ft apart, with the 4 well layout forming a diamond shape.

The finished cavern is anticipated to be oval shaped along the long axis of the diamond. In-service crude storage date should be within 3 years of initiation of brine mining activities, depending on when the "B" wells begin solution mining the second well bore at each cavern location.

The six (6) proposed crude oil storage caverns are anticipated to develop an oval shape, approximately 180 by 120 feet in diameter, with the top of the cavern located at a depth of approximately 2,350 feet below ground surface. The deepest cemented casing shoe is planned to be at 2,250 ft with a 100 ft cavern "chimney" or "neck". The

[14] All 30" production well applications are for a TD of 6,500 ft as it is not yet clear what order the wells will be drilled in or to what diameter the "A well" cavern will have grown at the time of the installation of the "C", "B" and "D" wells.

base of the cavern will initially be located approximately 9,000 feet below ground surface. Total cavern volume is modeled to be up to 30 million bbls if the caverns are mined for brine supply to their maximum useful life utilizing reverse circulation. The separation (or pillar thickness) of adjacent walls of the caverns as measured in any direction will be approximately 710 feet. (wellhead separation of 950 feet among the "A" wells); the calculated P/D ratio is 3.9. These wells will be at least 500 ft from the property line and at a maximum brine development, approximately 350 ft from the nearest property line. The southern-most oil cavern well will be approximately 1100 ft from the edge of the dome

It is possible the caverns will be converted to hydrocarbon storage before obtaining the maximum proposed dimensions such that the ultimate cavern dimension will be substantially reduced (depending on when in the brine production / storage conversion occurs). Oil storage is intended to occur above the 3,850 ft level below surface, deemed the base of the operational crude oil storage.

The wells of the natural gas storage caverns at maximum development diameter will be approximately 900 ft. from the property boundary and approximately 1,000 ft. from the salt edge of the salt mass (PEP Gas Storage No.1). The cavern diameter is modeled to be 250 feet with a wellhead separation of 810 ft providing a 3.4 P/D ratio. Each of the natural gas storage caverns (PEP Wells 1, 2, and 3) are designed to be up to 10 million bbl caverns with the casing shoe cemented at 3,750 ft with a TD as 9,000 ft. These wells will develop caverns 240 ft in diameter approximately 1150 ft tall with a 200 ft chimney. These caverns are depicted on Seismic Lines C and D.

The LPG storage caverns (PEP Wells 20-30) are designed to be 100,000 to 250,000 bbls developed between 2,350 ft and 4,000 ft with the casing shoes at 2,250 ft. This development is depicted on Seismic Lines B and D. These caverns will be approximately 500 ft tall and 40 ft and 60 ft in diameter, respectively. The walls of the LPG caverns as planned for development will be 125 feet from the property line and 3,000 ft from the edge of the dome.

VII. FLUIDS TO BE STORED

The fluid products to be stored in the caverns will come from a variety of sources. The crude oil is anticipated to be primarily Permian Basin light sweet crudes.

The Permian Basin will also likely be the source for other stored liquid hydrocarbons. In addition to products that could be received from and/or shipped to nearby petrochemical plants and refineries. The list of possible NGL/LPG products and byproducts PEP requests authority to store include: all types of liquid hydrocarbons, including, but not limited to:

- ethane,
- propane,
- EP Mix,
- propylene,
- natural gasoline,
- n-butane,
- iso-butane,
- mixed butanes,
- pentanes,
- BB mix,
- heavy olefin byproducts,
- diesel,
- motor gasoline,
- jet fuel,
- condensate.

Natural gas will be pipeline specification gas with an estimated range in composition described below either received from or delivered to FLNG Gas Header System.

Component	Rich	Lean
N2	0.42	1.08
CO2	0.00	0.00
C1	87.72	87.72
C2	8.71	8.71
C3	2.26	2.26
i-C4	0.34	0.34

n-C4	0.52	0.52
C5	0.03	0.03
Total	100.00	100.00
Btu	1150	950

Table 5: Typical Qualities of Stored Natural Gas

VIII. OPERATING PRESSURES AND FLOW RATES

The oil and LPG storage caverns maximum cavern pressure will be 1,800 pounds per square inch gauge (psig) which is equivalent to a gradient of 0.80 psig per foot (psig/ft). The natural gas caverns maximum cavern pressure will be 3,187 psi at the 3,750 ft casing shoe which is equivalent to a 0.85 psi/ft gradient.

The operating pressure of each product storage cavern well will not exceed the permitted maximum operating pressure for the well. The permitted maximum operating pressure is that pressure specified in the commission permit or order, or, if not specified in the permit or order, that pressure stated in the application for the amendment to a permit order.

The crude oil storage caverns will not exceed a 0.8 psi per foot of depth of overburden corresponding to 1,800 psi at 2,250 ft BGL. The maximum operating pressure for the natural gas caverns at the casing seat will not exceed 0.85 psi per foot of depth of overburden corresponding to 3187 psig at 3,750 ft. It is expected that the cavern can be safely operated between a maximum and minimum operating gradient of 0.85 psi per foot and 0.25 psi per foot (respectively) to the last cemented casing string. However, experience with the FLNG #1 cavern suggests a minimum pressure gradient of 0.30 psi per foot provides a margin minimizing cavern creep. The minimum operating pressure at the production casing seat based on 0.30 psi per foot of depth of overburden corresponding is 1,125 psig at 3,750 ft. The actual operating pressure range will be determined upon confirmation of the results from geo-mechanical testing and finite element analysis on the core from the initial gas cavern well and will be in compliance with TRC permit conditions.

Each 16” production casing brine cavern will be accessed by one (1) American Petroleum Institute (API) 2000# wellhead complete with valves, instruments, and controls for solution mining activities. Conversion to crude, LPG and natural gas storage will entail replace of the brine production wellhead to 3,000# or 5,000# wellheads for liquid and natural gas storage service.

IX. AREA OF REVIEW

The boundary of the PEP property is shown on the Area of Review (AOR) map included as **Appendix D.** The map shows the proposed cavern well locations and all other wellbores of public record within the AOR. For the purposes of this map, the AOR is defined as all wells within one quarter (1/4) mile radius of property boundary and encompasses much more area than normally required, 1/4 mile from each proposed storage well. **Appendix E** is the Table of Wells shown on the AOR map by Map ID Number and identifying each well by Operator Name, Lease Name, API Number, Total Depth, and whether they are active or plugged. Included as **Appendix F** are the well records for wells within ¼ mile of any proposed storage well that have been plugged or are known to have penetrated the salt formation.

The AOR map shows the planned location of various components, existing and proposed that will be integral to the operation of the facility. Included **Appendix G** is a preliminary description of the major components of the Brine Mining and Product Pumping Plant.

X. PLUGGING

Each cavern storage well shall be plugged upon permanent abandonment in a manner approved by the commission. A proposal for the plugging will be submitted to the commission in Austin for approval or modification prior to plugging. Following approval of a plugging plan, the operator shall file notification of intent to plug at least five days prior to commencement and within 30 days after plugging. As an alternative to plugging a storage well that has been permanently deactivated, PEP may request

approval of a plan to convert the well to a monitor well. A pressure monitoring plan must be submitted to the commission along the request to convert the well to a monitoring well.

The following program presents general steps for plugging the gas storage cavern wells. The program is recommended for use as a general guideline. Actual conditions encountered during the process will dictate the steps to be taken. After the product is removed the cavern, it will be filled with saturated brine. Prior to abandonment of any hydrocarbon storage well, PEP will submit a plugging plan. The plan shall include, but not limited to the following abandonment procedures.

- Submit a plugging plan for approval or modification for the well to be plugged.
- File notification to plug prior to commencement of plugging operations.
- Empty remaining hydrocarbons, if any, from the well to be plugged through brine displacement and fill the cavern with brine to the casing shoe.
- Remove hanging strings, if any, from well to be plugged.
- Run a casing evaluation log in the well to be plugged to determine if there are areas in the production casing which will require a cement squeeze.
- Install a cementing umbrella in the wellbore just below the production casing shoe and cement the production casing to surface. This shall be in accordance with government and industry standards and Railroad Commission of Texas Statewide Rule 14.
- Remove the plugged well's wellhead, cut off the production casing 5 ft. below the ground surface, install abandoned well marker, and backfill the hole.
- File a plugging report following the completion of the plugging operation.

XI. PROPERTY AND MINERAL OWNERSHIP DESCRIPTION AND NOTIFICATION

Notice of the application was provided directly to the following persons via regular mail and certified mail prior to filing with the Commission. A certificate of service is included in **Appendix H.**

OFFSET SURFACE OWNERS		
MAP ID	**PROPERTY ID**	**SURFACE OWNER**
1	154421	PINTO ENERGY PTRS - STG, LLC 3737 BUFFALO SPEEDWAY STE 1100 HOUSTON, TX 77098
2	162814	HARVEST FOR THE HUNGRY 2001 HOLCOMBE BLVD #3305 HOUSTON, TX 77030-4232
3	553624	63 PROPERTIES, LLC PO BOX 3487 FREEPORT, TX 77542-1687
4	154423	SHINTECH INC 3 GREENWAY PLZ STE 1150 HOUSTON, TX 77046-0325
5	512374	BRAZORIA COUNTY MODELERS ASSN C/O ERIK VALDEZ 140 BRAZOSPORT BLVD N CLUTE, TX 77531-3702
6,7,8,9,10	154422 154429 154428 150961	THE DOW CHEMICAL COMPANY C/O TAX DEPT TXINN APB FLOOR 4A 332 SH 332 E LAKE JACKSON, TX 77566

OFFSET MINERAL OWNERS		
MAP ID	**PROPERTY ID**	**MINERAL OWNER**
1	154421	COCKRELL INVESTMENT PARTNERS 3737 BUFFALO SPEEDWAY, SUITE 1100 HOUSTON, TEXAS 77098
1	154421	FREEPORT LNG 333 CLAY ST # 5050 HOUSTON, TX 77002
2	162814	HARVEST FOR THE HUNGRY C/O DAVE HUANG 2001 HOLCOMBE BLVD #3305 HOUSTON, TX 77030-4232
3	553624	CHEVRON C/O CHEVRON SERVICES TAX DEPARTMENT PO BOX 285 HOUSTON, TX 77001-0285
4,5	154423 512374	DOW CHEMICAL COMPANY 2301 N BRAZOSPORT BLVD FREEPORT, TX 77541
6	154422	BP AMERICA PRODUCTION CO 502 WESTLAKE PARK BLVD HOUSTON, TX 77079
6	154422	ELAINE S WHITE TRUST 2110 RIVER OAKS BLVD. HOUSTON TX 77019
6	154422	FROST 4 INTERESTS LTD LLP, REVOCABLE TRUST 2110 RIVER OAKS BLVD. HOUSTON TX 77019
6	154422	FROST MINERAL TRUST, C/O KANALY TRUST CO PO BOX 13636 ARLINGTON, TX 76094-0636
6	154422	FROST PROPERTIES LTD, TRUST OPERATIONS AMEGY BANK TRUSTEE P O BOX 27767 HOUSTON, TX 77227-7767
6	154422	DINO DUE 206 BIRDSALL ST HOUSTON, TX 77007-8108
6	154422	FROST FAMILY I LTD 5004 CEDAR ST BELLAIRE, TX 77401-4009
8	154422	MAGNOLIA PETROLEUM COMPANY 3811 TURTLE CREEK BLVD, SUITE 1900 DALLAS, TEXAS 75219-3811
10	150961	THE ALLAR COMPANY 735 ELM ST GRAHAM, TX 76450

XII. OFFSET OPERATOR NOTIFICATION

Offset Operators notified of this application are as follows:

- The Dow Chemical Company
- Ineos USA
- Ineos Chocolate Bayou P/L, LLC
- Kinder Morgan Tejas Pipeline, LLC
- Freeport LNG Development, LP

XIII. AFFIDAVIT OF PUBLICATION AND CERTIFICATE OF SERVICE

Notice of the application was published in the *The Facts*, a newspaper of general circulation in Brazoria County, once each week for three consecutive weeks. A copy of the application (Form H-4, including the instructions) was sent via regular and certified US Mail to all Surface Owners, Mineral Owners, and Offset Operators. A copy of the newspaper publication and publisher's affidavit along with a "Certificate of Service" for all Surface Owners, Mineral Owners, and Operators is included in **Appendix H**

XIV. SEISMIC REVIEW

Although neither Rules 81, 95 or 97 require applicants to provide information regarding the incidence of seismic events, it is anticipated that Staff may wish to have this information. Therefore, a review of all seismic events within 50 kilometers centered on the location of the Freeport LNG well situated near the center of PEP's proposed facility was conducted to demonstrate that there have not been any such events. Included as **Appendix I** are the documents to establish this fact.

APPENDIX A

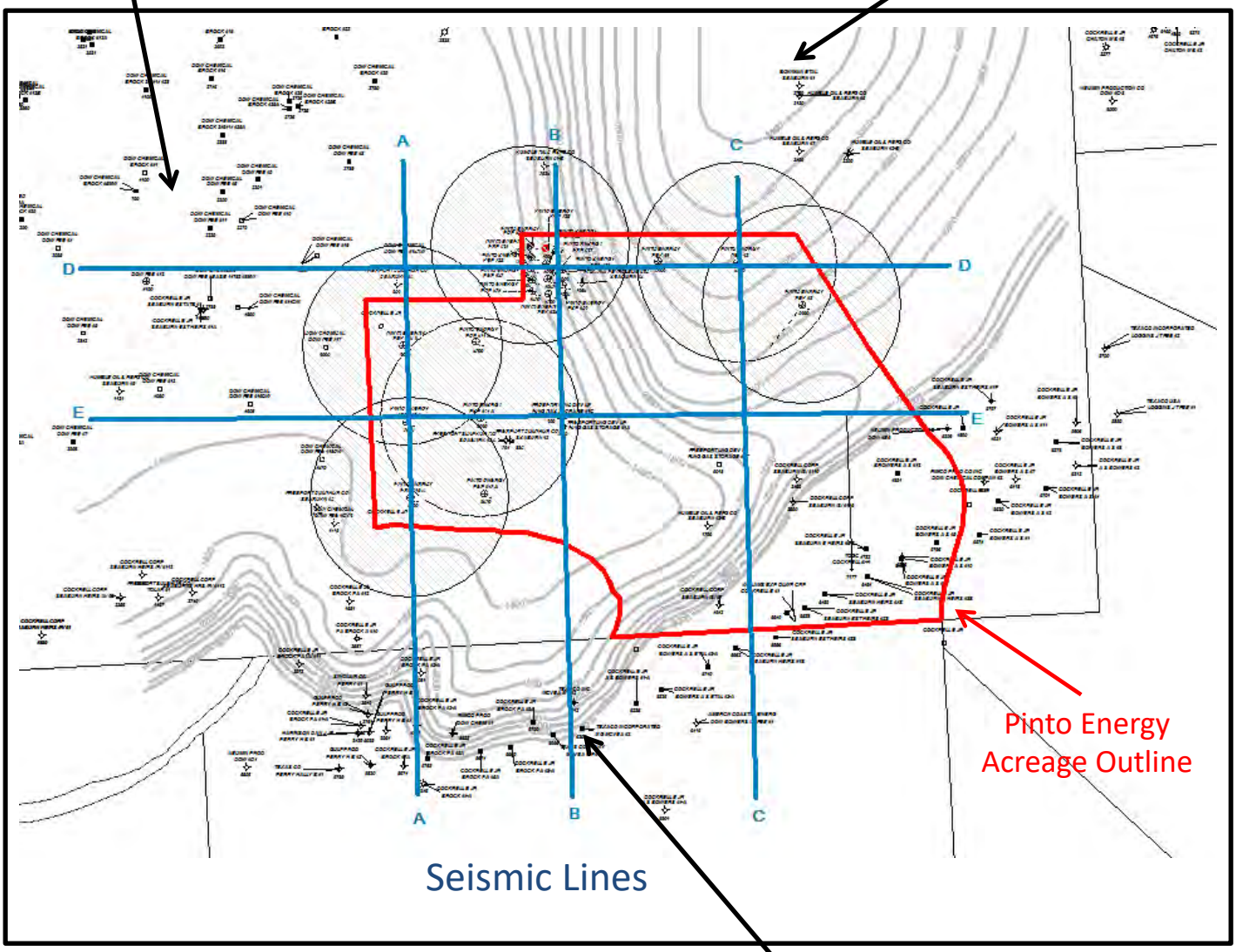
SEISMIC CROSS-SECTION

LINES A – E

Stratton Ridge
Top of Salt Structure Map

Salt High -
Top of Salt Dome

Salt Low - Depression

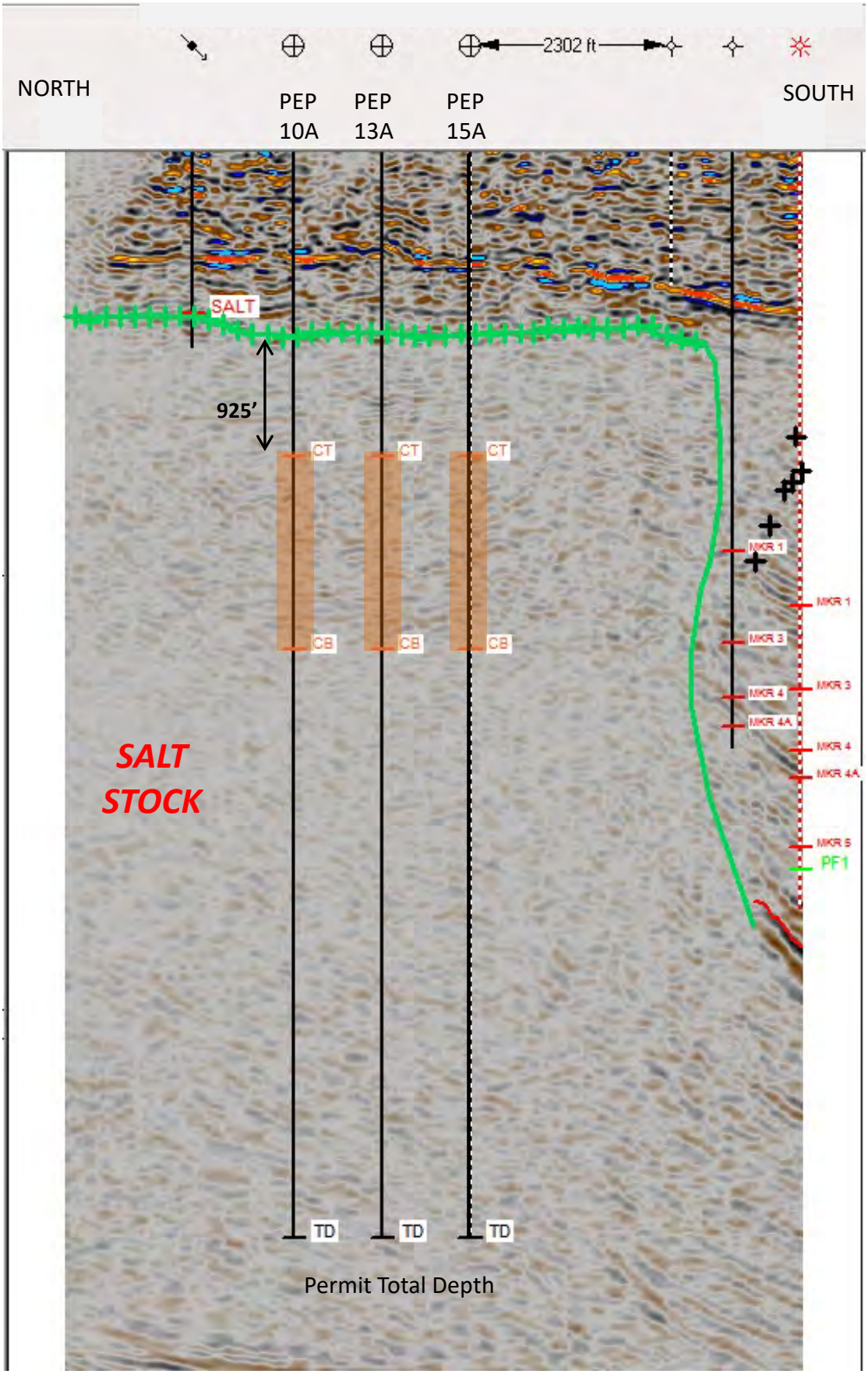


Salt Edge - southeast flank of salt dome

- 1320’ Radius

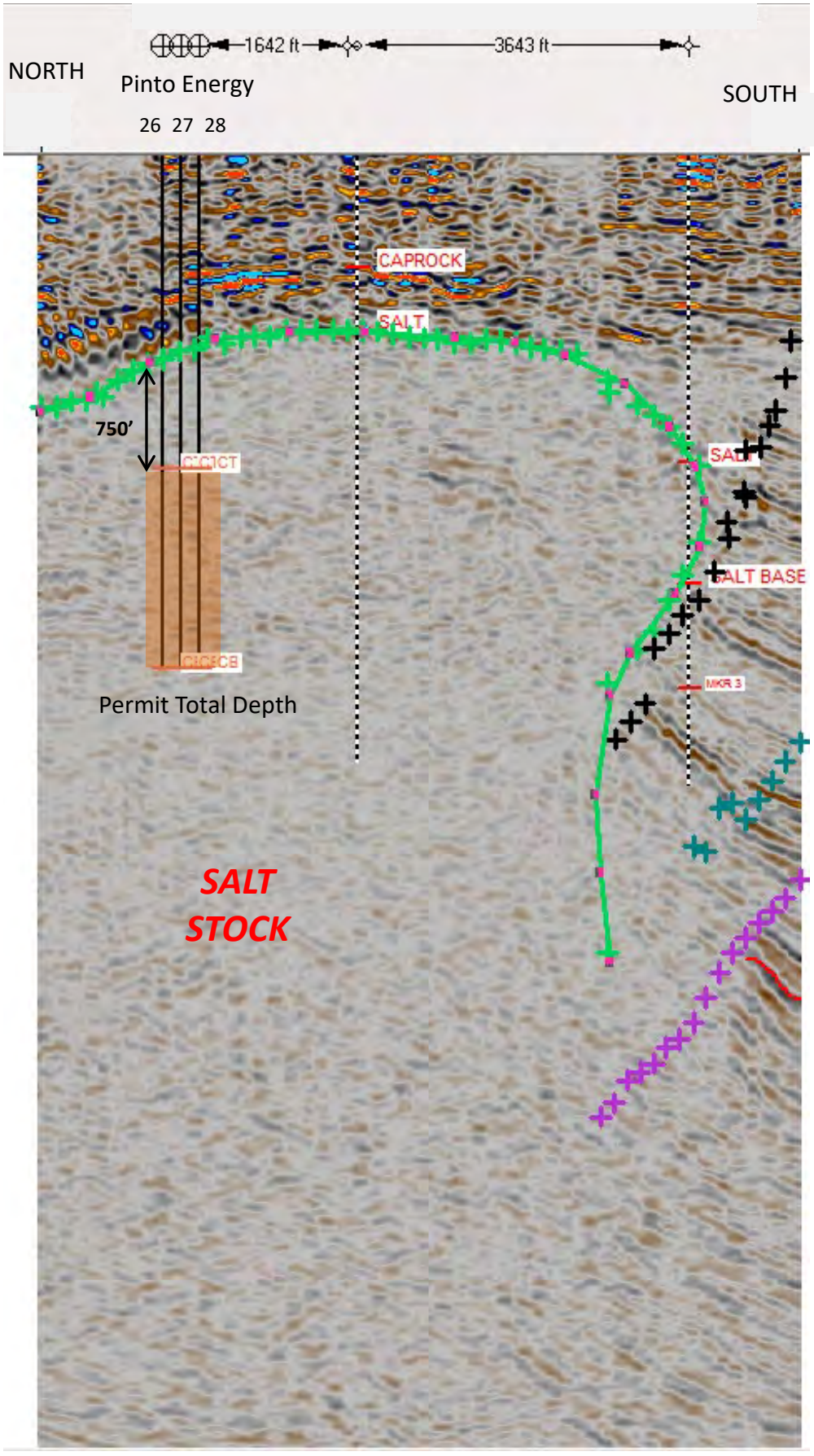
CT – Cavern Top
CB – Cavern Base

Seismic Line A



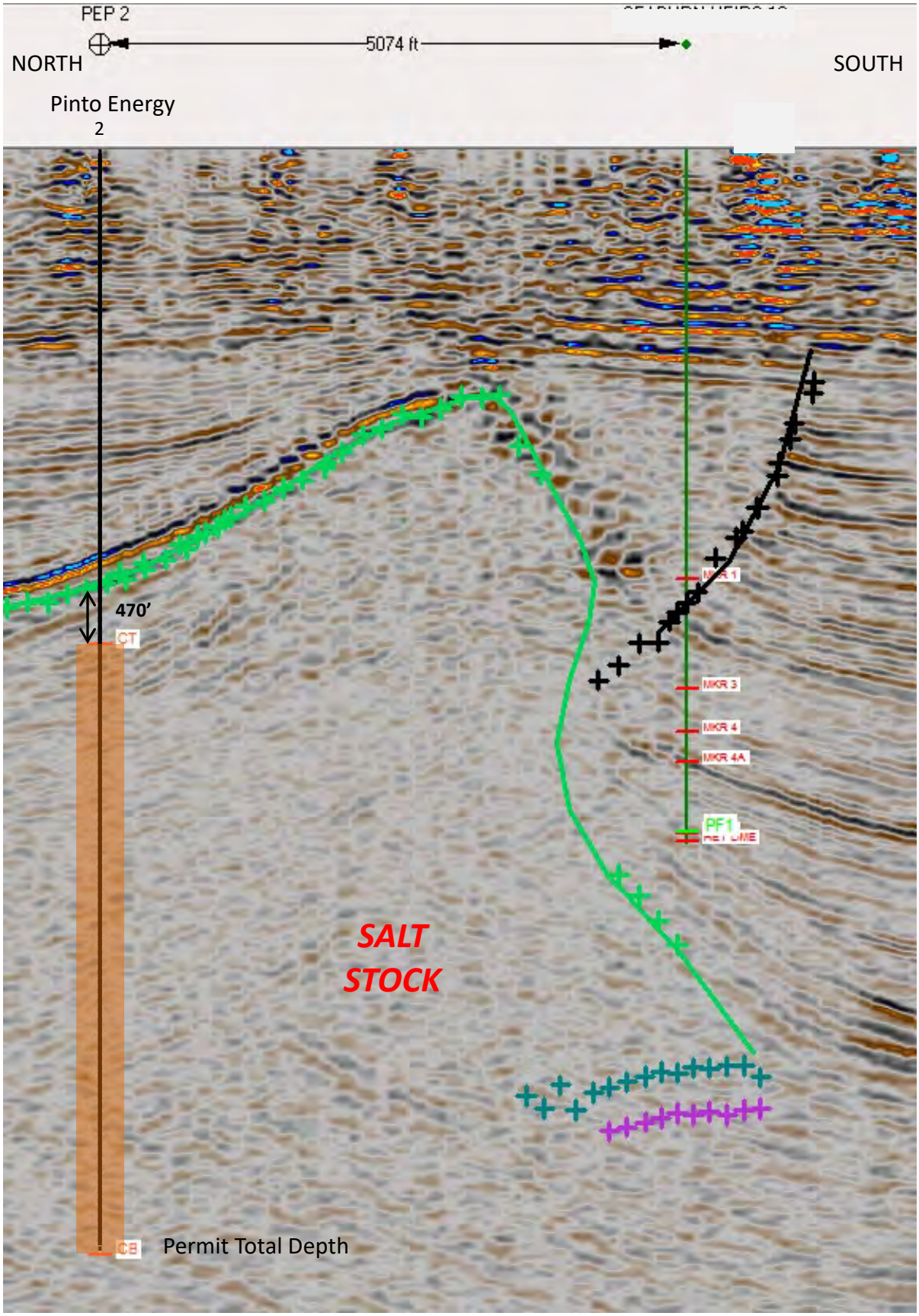
CT – Cavern Top
CB – Cavern Base

Seismic Line B



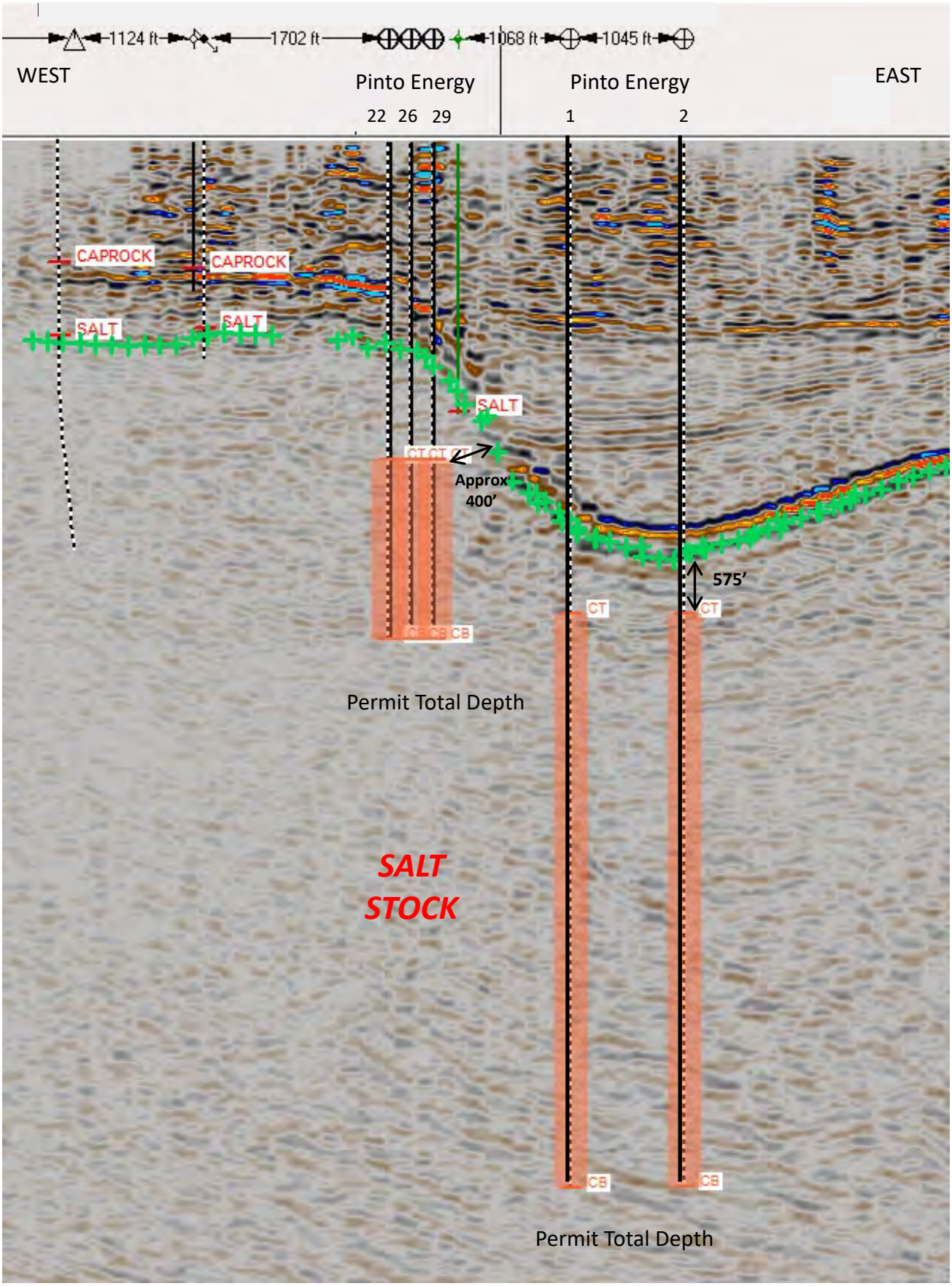
CT – Cavern Top
CB – Cavern Base

Seismic Line C



CT – Cavern Top
CB – Cavern Base

Seismic Line D



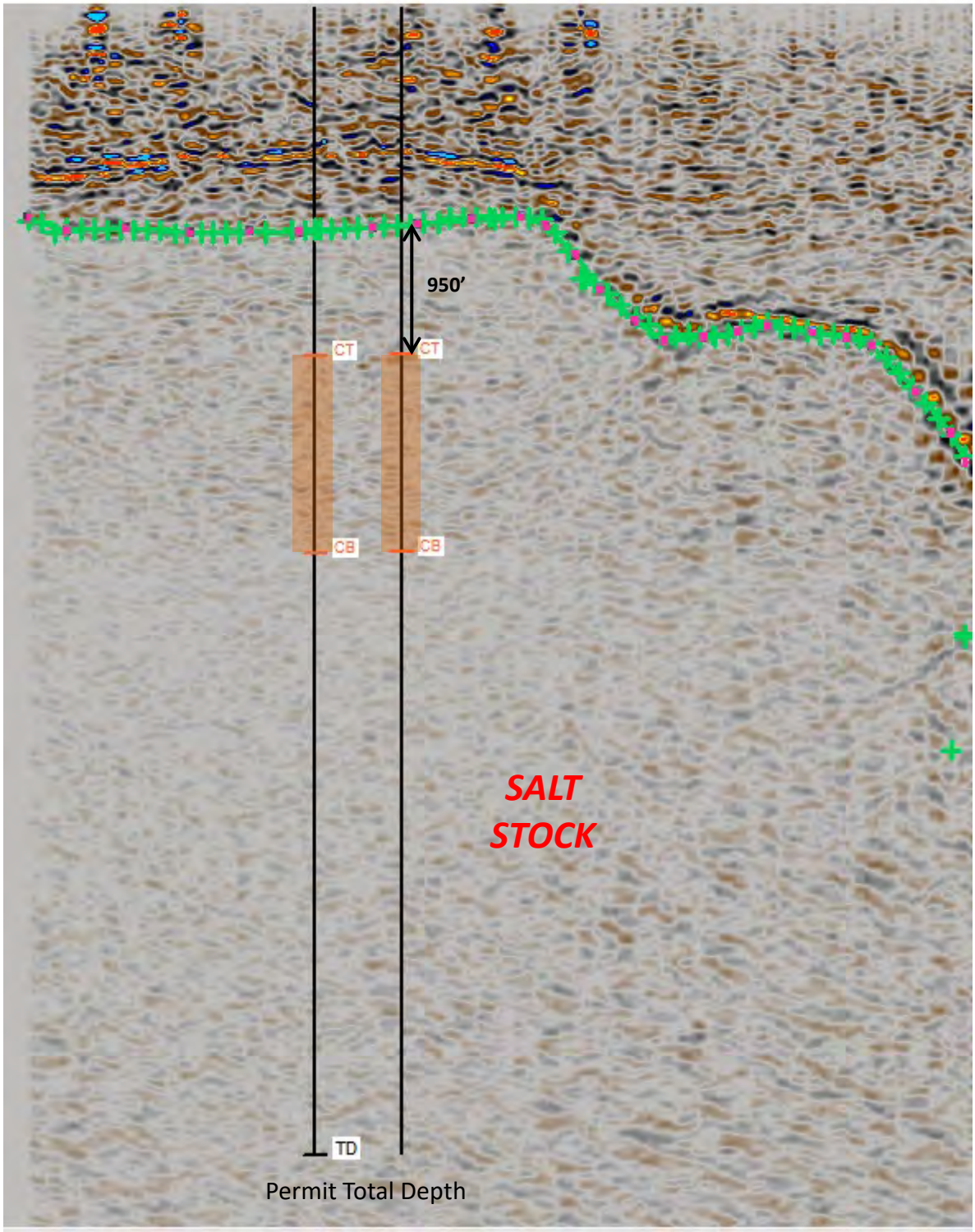
CT – Cavern Top
CB – Cavern Base

Seismic Line E

WEST

Pinto Energy
13A 14A

EAST



APPENDIX B

GROUNDWATER PROTECTION DETERMINATION

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	29 July 2022	**GAU Number:**	351146

Attention:	PINTO ENERGY PTRS - STG 1, 3737 BUFFALO SPEEDWAY HOUSTON, TX 77098	**API Number:**	
		County:	BRAZORIA
		Lease Name:	Pinto Energy Storage
		Lease Number:	
Operator No.:	665753	**Well Number:**	
		Total Vertical	9000
		Latitude:	29.034307
		Longitude:	-95.343694
		Datum:	NAD27

Purpose: Brine Mining (H2)

Location: Survey-GROCE, J E; Abstract-66

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The base of usable-quality water-bearing strata is estimated to occur at a depth of 750 feet at the site of the referenced well.

The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1150 feet at the site of the referenced well.

This recommendation is applicable for all wells drilled in this Lease that is "on structure" of the Stratton Ridge Salt Dome as describe in the support documents with this application.

Note: Unless stated otherwise, this recommendation is intended to apply to all wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

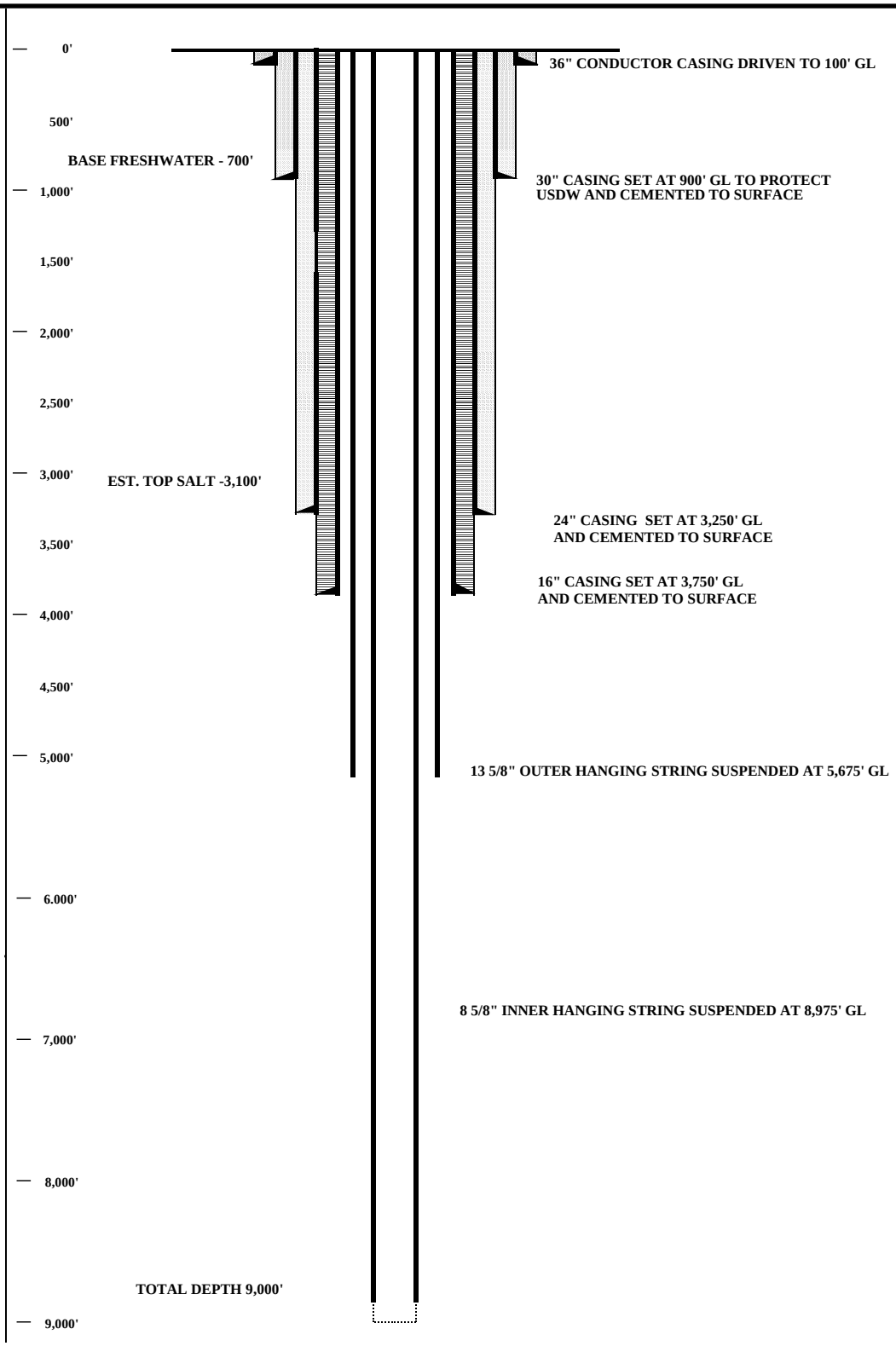
This determination is based on information provided when the application was submitted on 07/27/2022. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

APPENDIX C

WELLBORE SCHEMATICS

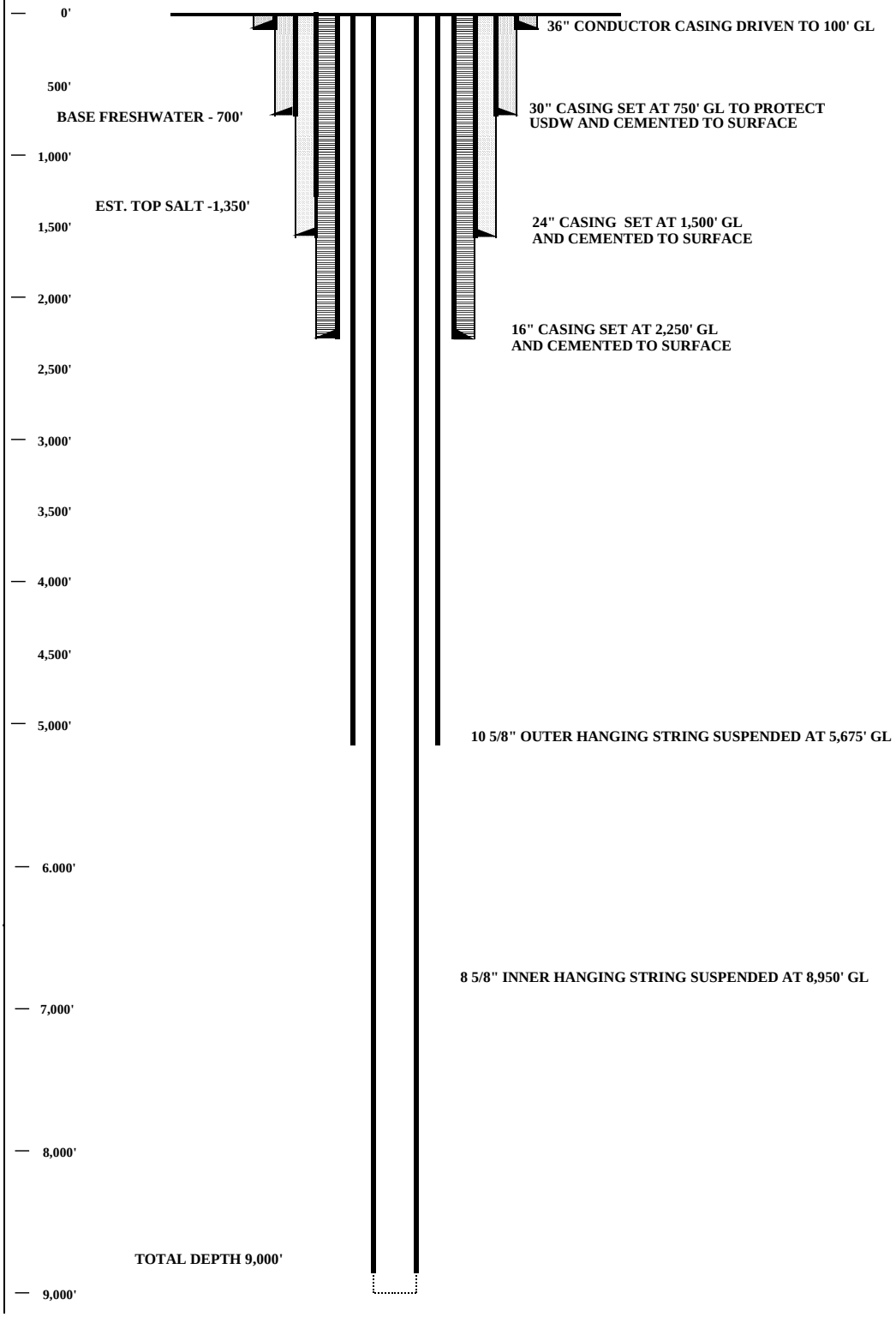
WELLBORE SCHEMATICS FOR GAS STORAGE WELLS NO, 1, 2, AND 3



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

BOREHOLE SCHEMATIC 16" CAVERN WELLS

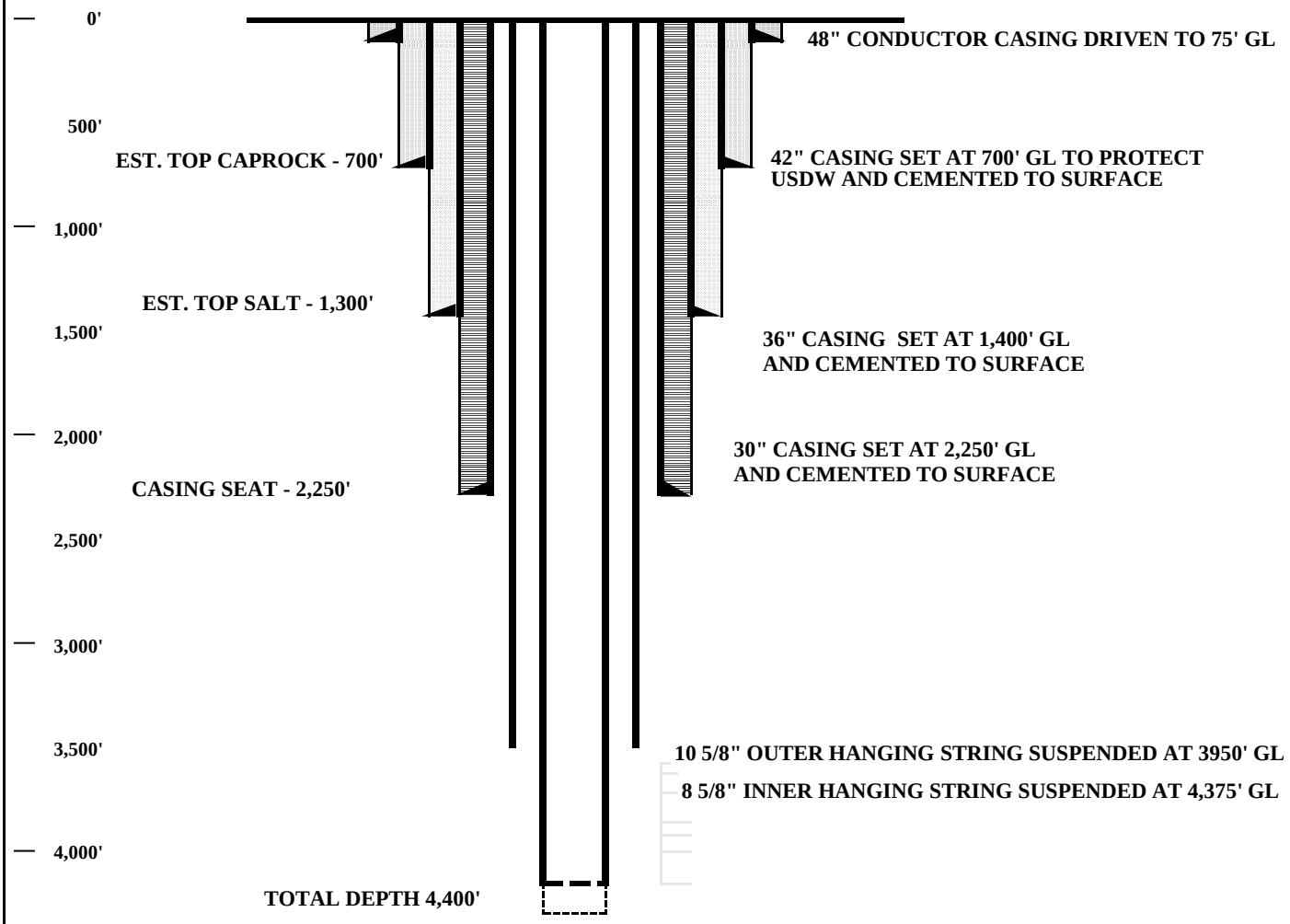
WELLBORE SCHEMATIC FOR CRUDE OIL STORAGE WELLS NO. 10A, 11A, 13A, 14A, 15A, AND 16A



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

BOREHOLE SCHEMATIC 16" CAVERN WELLS

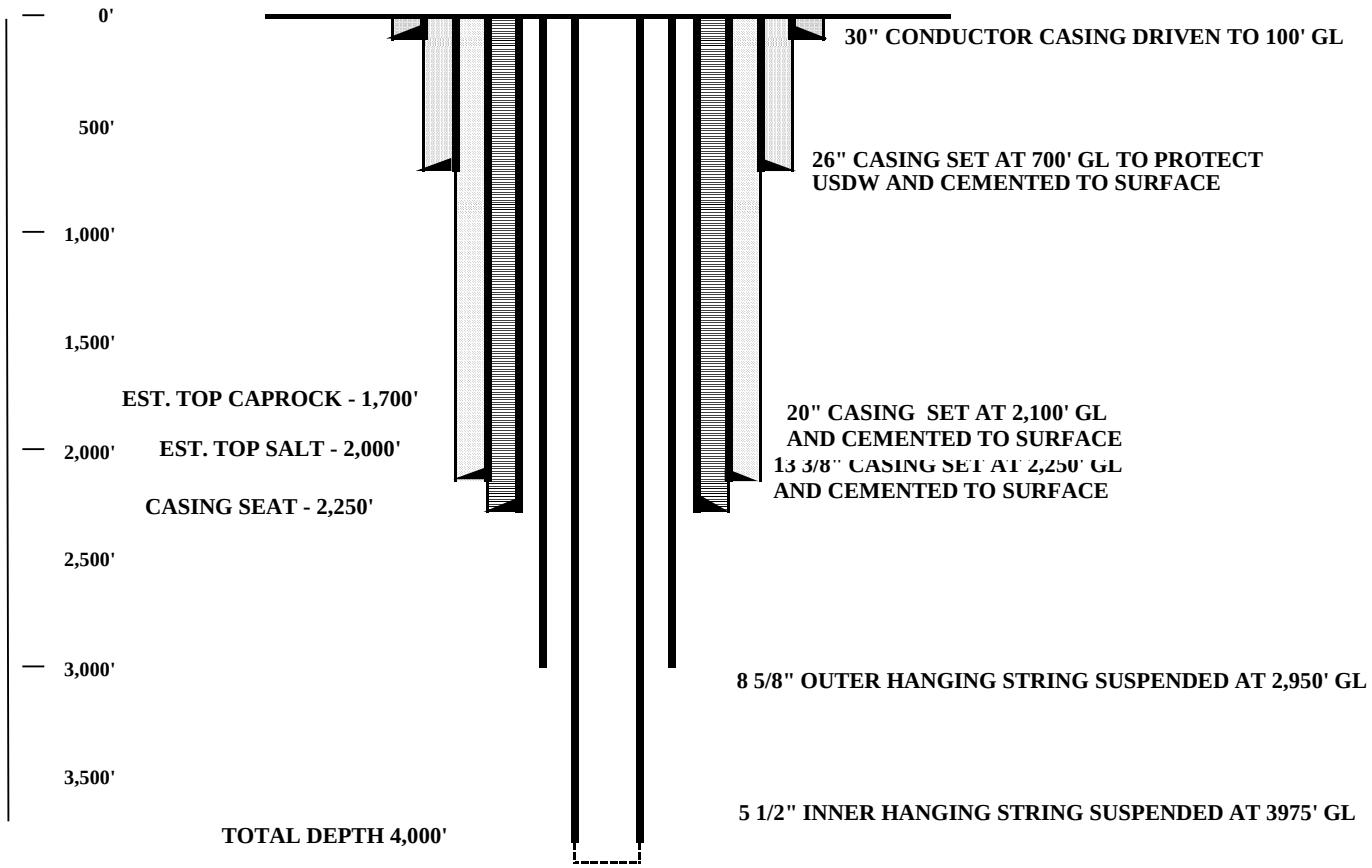
WELLBORE SCHEMATIC FOR CRUDE OIL STORAGE
CAVERNS NO. 10, 11, 13, 14, 15, AND 16
FOR ALL B, C, AND D WELLS



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

BOREHOLE SCHEMATIC 30" HYDROCARBON STORAGE WELLS

WELLBORE SCHEMATICS FOR ALL NGL/LPG STORAGE WELLS NO. 20 - 30



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

BOREHOLE SCHEMATIC 13 3/8" PRODUCT WELLS 20-30

APPENDIX D

AREA OF REVIEW MAP

THIS DRAWING IS THE PROPERTY OF THE DOYLE & WACHTSTETTER, INC., IS CONFIDENTIAL AND MUST NOT BE MADE PUBLIC OR COPIED AND IS SUBJECT TO RETURN ON DEMAND. ALL RIGHTS OF INVENTION OR DESIGN ARE RESERVED.

BRAZORIA COUNTY TEXAS

LEGEND

* SOME ELEMENTS MAY NOT BE USED ON SURVEY

- FOUND IRON PIPE/ROD
- SET ½" IRON ROD W/ SURVEY CAP "KTD 6526"
- CONTROLLING MONUMENT
- MON. OF RECORD DKDNTY
- CONCRETE MONUMENT
- WELL LOCATIONS: PROPOSED; PROPOSED (MULTIPLE); EXISTING
- SUBJECT TRACT
- ADJACENT TRACT
- CORRIDOR BOUNDARY
- PROCESS AREA
- EASEMENT LINE
- FENCE: WOODEN; CHAIN LINK; BARBWIRE

B.C.D.R. = BRAZORIA COUNTY DEED RECORDS
B.C.O.R. = BRAZORIA COUNTY OFFICIAL RECORDS
B.C.P.R. = BRAZORIA COUNTY PLAT RECORDS

TXRRC WELL DATABASE
- CANCELED / ABANDONED LOCATION
- STORAGE WELL
- OIL WELL
- DRY HOLE
- PERMITTED LOCATION
- BRINE MINING
- PLUGGED OIL WELL
- LOCATION PER TOBIN MAP

BROCK STRATTON RIDGE, LLC
CALLED 1351.6 ACRE TRACT
CLERK'S FILE NO. 2016038873
B.C.O.R.

THOMAS AYLMER DWYER MCNEESE DESCENDANTS TRUST
CALLED 2.71 ACRE TRACT
CLERK'S FILE NO. 2020071276
B.C.O.R.

LL RHODES FAMILY LIMITED PARTNERSHIP
CALLED 10.00 ACRE TRACT
CLERK'S FILE NO. 2013030866
B.C.O.R.

DOW CHEMICAL COMPANY
BP AMERICA PRODUCTION CO.

DOW PIPELINE CORR. "H"

MISSOURI PACIFIC/HOSKINS MOUND RAILROAD (SERVICE SUSPENDED)

FARM TO MARKET ROAD 523 (NO RECORD FOUND) (RIGHT-OF-WAY WIDTH VARIES AS NOTED)

RIGHT-OF-WAY LINE AS FENCED

AREA OF REVIEW

N

0 250 500 1000
1" = 500' (22" X 34")
1" = 1000' (11" X 17")

7
S - Dow Chemical
M - Dow Chemical

6
S - Dow Chemical
M - Dow Chemical
M - BP America Production
M - Frost Entities

1
S - Pinto Energy Partner SR
M - Cockrell Investment Partners

5
S - Brazoria County Modelers
M - Dow Chemical

8
S - Dow Chemical
M - Dow Chemical
M - Magnolia Petroleum

9
S - Dow Chemical
M - Dow Chemical

10
S - Dow Chemical
M - Dow Chemical
M - Allar

4
S - Shintech
M - Dow Chemical

3
S - 63 Properties
M - Chevron

2
S - Harvest for the Hungry
M - Harvest for the Hungry

JARED E. GROCE 5 LEAGUE GRANT
ABSTRACT - 66

JOHN W. LIGHTFOOT ¼ LEAGUE GRANT
ABSTRACT - 316

STEPHEN F. AUSTIN SURVEY
ABSTRACT - 21

ROBERT AYCOCK SURVEY
ABSTRACT - 146

OYSTER CREEK

GRAVEL ROAD

COUNTY ROAD 202 (SUGGS ROAD) (NO RECORD FOUND) (RIGHT-OF-WAY WIDTH VARIES AS NOTED)

63 PROPERTIES, LLC
CALLED 10.422 ACRE TRACT
CLERK'S FILE NO. 2020042064
B.C.O.R.

OSCAR ACUNA
CALLED 10.057 ACRE TRACT
CLERK'S FILE NO. 2009007594
B.C.O.R.

STUBBLEFIELD LAKE

APPARENT LIMITS OF STUBBLEFIELD LAKE

LOW LYING AREA

GRAVEL / DIRT FIELD ROAD

GRAVEL WELL PAD

TANK AND PROCESS EQUIP.

PROCESS AREA AND CORR.

VALVE SITE

BOTTOM HOLE (TYP.)

PINTO 1

PINTO 2

PINTO 3

NATURAL GAS UNIT (NEW)

CRUDE OIL TRANSFER PUMP STATION (NEW)

BRINE SOLUTION UNIT (NEW)

LPG UNIT (NEW)

GRAVEL ROAD

PINTO ENERGY NEW FACILITIES BEING PERMITTED IN THIS APPLICATION

FREEPORT LNG BRINE MINING & COMPRESSION FACILITY

FREEPORT LNG STORAGE L.P. FACILITY

FREEPORT LNG UTILITY EASEMENT "C"

ELECTRICAL SUBSTATION

FREEPORT LNG UTILITY EASEMENT "A"

EASEMENT PROVIDED BY CLIENT

FREEPORT LNG STORAGE CAVERN FACILITY

FREEPORT LNG UTILITY EASEMENT "B"

SUBJECT
774.6 ACRE TRACT
PINTO ENERGY PARTNERS - SR, LLC
CALLED 774.67812 ACRE TRACT
CLERK'S FILE NO. 2013021390
B.C.O.R.

RIGHT-OF-WAY LINE AS FENCED

MAP ID WELL #1 API NO. 03920946 DOW CHEMICAL FEE - TD: 4500'
MAP ID WELL #2 API NO. 03923050 DOW CHEMICAL FEE 19 DW TD: 4564'
MAP ID WELL #3 API NO. 03923900 DOW CHEMICAL FEE - 17 TD: 5000'
MAP ID WELL #4 API NO. 03923047 DOW FEE NO. 18 DW TD: 4570'
MAP ID WELL #5 API NO. 03920750 DOW FEE CT NO. 2 TD: 4145'
MAP ID WELL #6 API NO. 03923046 DOW CHEMICAL FEE - 16DW TD: 4508'
MAP ID WELL #7 API NO. 03904654 COCKRELL BROCK 10A TD: 2667'
MAP ID WELL #8 API NO. 03904877 COCKRELL BROCK-12 TD: 1591'
MAP ID WELL #9 API NO. 03903458 COCKRELL SEABURN - 1 TD: 1150'
MAP ID WELL #10 API NO. 03923920 DOW CHEMICAL FEE 14DW TD: 4508'
MAP ID WELL #11 API NO. 039 NO 1 TD: UNKNOWN
MAP ID WELL #12 API NO. 03904440 TEXACO MCVEA - 2 TD: 6200'
MAP ID WELL #13 API NO. 03904441 TEXACO MCVEA - 3 TD: 5013'
MAP ID WELL #14 API NO. 03904435 COCKRELL BOWERS - 1A TD: 6226'
MAP ID WELL #15 API NO. 03904436 COCKRELL BOWERS - 2A TD: 5836'
MAP ID WELL #16 API NO. 03904437 COCKRELL BOWERS - 3A TD: 5740'
MAP ID WELL #17 API NO. 03922225 AMERICAN COASTAL ENERGY DOW BOWERS FEE - 1A TD: 6416'
MAP ID WELL #18 API NO. 03923913 FREEPORT LNG NO. 1T TD: 6018'
MAP ID WELL #19 API NO. 03923914 FREEPORT LNG NO. 2C TD: UNKNOWN
MAP ID WELL #20 API NO. 03904394 HUMBLE SEABURN - 2B TD: 1799'
MAP ID WELL #21 API NO. 03923912 FREEPORT LNG NO. 1C TD: 900'
MAP ID WELL #22 API NO. 03903091 COCKRELL SEABURN - 7S TD: 4545'
MAP ID WELL #23 API NO. 03904430 COCKRELL SEABURN 2S TD: 5347'
MAP ID WELL #24 API NO. 03904429 COCKRELL SEABURN 1S TD: 5062'
MAP ID WELL #25 API NO. 03922107 TXRRC #2 TD: N/A
MAP ID WELL #26 API NO. 03904431 COCKRELL SEABURN #3S TD: 5538'
MAP ID WELL #27 API NO. 03922105 AMERICON COMETRA #1 TD: 5540'
MAP ID WELL #28 API NO. 03904432 COCKRELL SEABURN #4S TD: 5469'
MAP ID WELL #29 API NO. 03904433 COCKRELL SEABURN #5S TD: 5454'
MAP ID WELL #30 API NO. 03904434 COCKRELL SEABURN #6S TD: 4782'
MAP ID WELL #31 API NO. 03905018 COCKRELL SEABURN 110 S TD: 2469'
MAP ID WELL #32 API NO. 03904424 COCKRELL BOWERS - 10 TD: 5463'
MAP ID WELL #33 API NO. 03904419 COCKRELL BOWERS - 5 TD: 5758'
MAP ID WELL #34 API NO. 03904417 COCKRELL BOWERS - 3 TD: 4417'
MAP ID WELL #35 API NO. 03904421 COCKRELL BOWERS - 13 TD: 4891'
MAP ID WELL #36 API NO. 03904415 COCKRELL BOWERS - 1 TD: 6574'
MAP ID WELL #37 API NO. 03904423 COCKRELL BOWERS - 9 TD: 5418'
MAP ID WELL #38 API NO. 03923907 RIMCO DOW 2 TD: 5531'
MAP ID WELL #39 API NO. 03904418 COCKRELL BOWERS - 4 TD: 5700'
MAP ID WELL #40 API NO. 03904422 COCKRELL BOWERS - 7 TD: 5418'
MAP ID WELL #41 API NO. 03904422 COCKRELL BOWERS - 8 TD: 5375'
MAP ID WELL #42 API NO. 03923274 NEUMIN PROD DOW - 5E TD: 5305'
MAP ID WELL #43 API NO. 03904425 COCKRELL BOWERS - 11 TD: 4830'
MAP ID WELL #44 API NO. 03904426 COCKRELL BOWERS - 12 TD: 4590'
MAP ID WELL #45 API NO. 03904428 COCKRELL SEABURN 1P TD: 4853'
MAP ID WELL #46 API NO. 03904383 HUMBLE SHELL SEABURN - 7 TD: 3499'
MAP ID WELL #47 API NO. 03904397 HUMBLE-SHELL SEABURN - 2 TD: 1955'
MAP ID WELL #48 API NO. 03904398 HUMBLE-SHELL SEABURN 3 TD: 3522'
MAP ID WELL #49 API NO. 03904403 FREEPORT SULPHUR SEABURN - 2 TD: 1177'
MAP ID WELL #50 API NO. 03904412 FREEPORT SULPHUR SEABURN - 4 TD: 990'
MAP ID WELL #51 API NO. 03904447 COCKRELL BROCK - 6A TD: 5974'
MAP ID WELL #52 API NO. UNKNOWN UNKNOWN TD: UNKNOWN
MAP ID WELL #53 API NO. 03920988 FREEPORT LNG NO. 1A TD: 4830'
MAP ID WELL #54 API NO. 03904410 FREEPORT SULPHUR SEABURN - 3 TD: 886'
MAP ID WELL #55 API NO. 03904411 FREEPORT SULPHUR SEABURN - 3A TD: 884'
MAP ID WELL #56 API NO. 03903020 COCKRELL SEABURN 115 S TD: 2690'
MAP ID WELL #82 API NO. 03904427 COCKRELL BOWERS - 6 TD: 5418'
MAP ID WELL #83 API NO. 03904420 COCKRELL BOWERS - 14 TD: 5418'
MAP ID WELL #84 API NO. 03904416 COCKRELL BOWERS - 2 TD: 5418'
MAP ID WELL #85 API NO. 03904413 COCKRELL BOWERS - 15 TD: 5418'
MAP ID WELL #86 API NO. 03904414 COCKRELL BOWERS - 16 TD: 5418'

PINTO ENERGY WELL NO.S 10A-10D
PINTO ENERGY WELL NO.S 11A-11D
PINTO ENERGY WELL NO.S 13A-13D
PINTO ENERGY WELL NO.S 14A-14D
PINTO ENERGY WELL NO.S 15A-15D
PINTO ENERGY WELL NO.S 16A-16D

WELL #20
WELL #25
WELL #21
WELL #26
WELL #22
WELL #29
WELL #27
WELL #23
WELL #30
WELL #28
WELL #24

NOTES:

1. ALL COORDINATES AND BEARINGS ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (NAD 83). NORTH ARROW SHOWN IS A GRAPHIC REPRESENTATION OF TEXAS STATE PLANE GRID NORTH.
2. ALL DISTANCES ARE HORIZONTAL GRID LEVEL LENGTHS. (C.S.F. = 0.99988085491)
3. THIS SURVEY DID NOT RELY ON A CURRENT TITLE COMMITMENT. THE INFORMATION CONTAINED ON THIS SURVEY WAS COMPILED FROM DATA BOTH PRIVATE AND PUBLIC FROM THE BRAZORIA COUNTY COURTHOUSE, RESEARCHED BY AUTHOR. IT DOES NOT REPRESENT A COMPLETE DEED RESEARCH AND THIS PROPERTY MAY BE SUBJECT TO ADDITIONAL EASEMENTS, ENCUMBRANCES, RESTRICTIVE COVENANTS, OR OWNERSHIP TITLE EVIDENCE THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
4. THE SCOPE OF THIS SURVEY IS LIMITED TO THE EXTERIOR BOUNDARY LINES OF THE SUBJECT TRACT AND EASEMENTS DISCOVERED THROUGH THE COURSE OF THIS PROJECT AND AS PROVIDED BY CLIENT. ADDITIONAL EASEMENTS, RESTRICTIVE COVENANTS, OR OTHER MATTERS MAY EXIST AND BE DISCOVERED THROUGH A COMPLETE TITLE SEARCH.
5. ALL TOPOGRAPHIC FEATURES SHOWN HEREON WERE DIGITIZED FROM HOUSTON GALVESTON AREA COUNCIL (H.G.A.C.) AERIAL IMAGERY DATED 2018.
6. WELL LOCATIONS SHOWN ARE BASED ON INFORMATION PROVIDED BY CLIENT AND TEXAS RAILROAD COMMISION GIS DATABASE RECORDS.
7. PROPOSED SURFACE FACILITY LOCATIONS SHOWN AWERE DIGITIZED FROM INFORMATION PROVIDED BY CLIENT.
8. ADJACENT MINERAL OWNERSHIP SHOWN IS BASED ON INFORMATION PROVIDED BY CLIENT.

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT.

PRELIMINARY

KIM THOMAS DOYLE
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NUMBER 6526

CURVE DATA TABLE

CURVE NO.	RADIUS	CENTRAL ANGLE	ARC LENGTH	CHORD BEARING	CHORD DISTANCE
C1	2864.59'	8°43'32"	436.25'	S 35°41'42" E	435.82'
C2	1432.51'	54°42'26"	1367.80'	S 12°42'15" E	1316.43'
C3	1432.51'	17°47'42"	444.91'	S 5°45'07" W	443.13'

LINE DATA TABLE

LINE NO.	BEARING	DISTANCE
L1	N 87°04'05" E	3704.5
L2	S 31°19'56" E	2816.21
L3	S 40°03'28" E	218.94
L4	S 14°38'58" W	909.18
L5	S 3°08'44" E	90.39
L6	S 87°27'45" W	4392.21
L7	N 21°41'08" E	110.14
L8	N 23°14'23" E	100.83
L9	N 17°32'50" E	100.03
L10	N 10°41'17" E	100.39
L11	N 8°59'25" E	100.72
L12	N 3°21'59" W	69.94
L13	N 20°26'49" W	67.12
L14	N 32°41'35" W	81.21
L15	N 64°50'09" W	23.6
L16	N 27°18'56" W	100.01
L17	N 19°55'28" W	101.1
L18	N 26°44'30" W	100.04
L19	N 37°55'04" W	127.74
L20	N 53°24'09" W	76.94
L21	N 48°52'08" W	101.59
L22	N 56°46'38" W	100.07
L23	N 55°38'05" W	100.18
L24	N 64°12'37" W	100.39
L25	N 63°38'48" W	100.31
L26	N 68°17'34" W	43.63
L27	N 74°13'29" W	91.43
L28	N 73°41'02" W	100.16
L29	N 74°49'47" W	100.07
L30	N 80°33'17" W	100.16
L31	N 82°43'56" W	61.35
L32	N 85°24'39" W	96.59
L33	N 89°15'48" W	100.23
L34	N 86°59'14" W	100.04
L35	N 77°51'29" W	100.83
L36	N 88°42'08" W	100.17
L37	S 87°54'05" W	100.8
L38	N 85°26'29" W	199.13
L39	S 89°58'35" W	200.3
L40	N 85°26'28" W	200.12
L41	N 82°42'53" W	200.67
L42	N 86°43'06" W	199.98
L43	S 88°27'29" W	148.74
L44	S 79°51'25" W	189.41
L45	S 65°40'05" W	36.87
L46	N 2°56'57" W	3084.76
L47	N 87°04'57" E	2094.65
L48	N 2°57'21" W	885.42

MAP OF A
774.6 ACRE TRACT AND 1/4 MILE BUFFER

BEING ALL THAT CERTAIN
PINTO ENERGY PARTNERS - SR, LLC
CALLED 774.67812 ACRE TRACT
AS RECORDED UNDER
CLERK'S FILE NO. 2013021390
OF THE
BRAZORIA COUNTY OFFICIAL RECORDS
IN THE
JARED E. GROCE 5 LEAGUE GRANT, ABSTRACT 66
BRAZORIA COUNTY, TEXAS
FOR
PINTO ENERGY PARTNERS

Doyle & Wachtstetter, Inc.
Surveying and Mapping GPS/GIS
131 COMMERCE STREET, CLUTE, TEXAS 77531
OFFICE: 979.265.3622 FAX: 979.265.9940 FIRM NO.:10024500

SURVEYED:	JAP 12-11-19	BOOK No.:	JAP VOL. 2	PROJ.NO.:	2192-20-01
DRAWN BY:	JDD 01-29-20	CHECKED:	KTD 01-29-20	REVISED:	JDD 03-31-22

SHEET 1 OF 1

USER: User
DATE: 4/5/2022
TIME: 7:33:17 AM
C:\DOYN\Pinto Energy\2021\Boundary Survey Update and WellReview Plat\2192-20-01-1(Survey Plat)(1500) Rev.7.dgn

APPENDIX E

AREA OF REVIEW TABLE

TABLE OF WELLS IN THE AREA OF REVIEW

Map ID Well Number	Operator Name	Dome Penetrations	Owner Name	Well Number	API Number	Total Depth	Status	Remarks	Well Records Provided
1	Dow Chemical Company	X	Dow Fee	15	3932846	4,500	Active	Brine Well	No
2	Dow Chemical Company	X	Dow Fee	19DW	3933050	4,564	Active	Brine Well	No
3	Dow Chemical Company	X	Dow Fee	17	3932900	5,000	Active	Brine Well	No
4	Dow Chemical Company	X	Dow Fee	18DW	3933047	4,570	Active	Brine Well	No
5	Dow Chemical Company	X	Dow Fee	CT 2	3932760	4,145	P&A	Core Test	Yes
6	Cockrell Corp		Brock	12	3904877	1,581	P&A	Did Not Penetrate Salt	No - Off Dome
7	Cockrell Corp		Brock	10A	3904854	2,687	P&A	Did Not Penetrate Salt	No - Off Dome
8	Dow Chemical Company	X	Dow Fee	16DW	3933048	4,508	Active	Brine Well	No
9	Cockrell Corp		Seaburn	1	3904358	1,150	P&A	Did Not Penetrate Salt	No - Outside AOR
10	Dow Chemical Company		Brock	14	3932828	4,500	Active	Brine Well	No - Outside AOR
11	Unknown		Unknown	1	NA	Unknown	P&A	Did Not Penetrate Salt	No - Off Dome
12	Texaco		McVea	2	3904440	6,200	P&A	Did Not Penetrate Salt	No - Off Dome
13	Texaco		McVea	3	3904441	5,013	P&A	Did Not Penetrate Salt	No - Off Dome
14	Cockrell Corp		Bowers	1A	3904435	6,226	P&A	Did Not Penetrate Salt	No - Off Dome
15	Cockrell Corp		Bowers	2A	3904436	5,836	P&A	Did Not Penetrate Salt	No - Off Dome
16	Cockrell Corp		Bowers	3A	3904437	5,740	P&A	Did Not Penetrate Salt	No - Off Dome
17	American Coastal Energy		Dow Bowers Fee	1A	3932225	6,416	P&A	Did Not Penetrate Salt	No - Off Dome
18	Freeport LNG Dev		Cockrell	2C	3932914	N/A	Location	Not Drilled	No
19	Freeport LNG Dev	X	Cockrell	1T	3932913	6,018	P&A	Core Test	Yes
20	Humble		Seaburn	2B	3904384	1,799	P&A	Did Not Penetrate Salt	Yes
21	Freeport LNG Dev		Cockrell	1C	3932912	900	P&A	Did Not Penetrate Salt	Yes
22	Cockrell Corp		Seaburn	7S	3930381	4,545	P&A	Did Not Penetrate Salt	No - Off Dome
23	Cockrell Corp		Seaburn	2S	3904430	5,347	P&A	Did Not Penetrate Salt	No - Off Dome
24	Cockrell Corp		Seaburn	1S	3904429	5,562	P&A	Did Not Penetrate Salt	No - Off Dome
25	American Cometra		Cockrell	1	3932106	5,540	P&A	Did Not Penetrate Salt	No - Off Dome
26	Cockrell Corp		Seaburn	3S	3904431	5,538	P&A	Did Not Penetrate Salt	No - Off Dome
27	Williams Exploration Co		Cockrell	2	3932107	N/A	Location	Not Drilled	No
28	Cockrell Corp		Seaburn	4S	3904432	5,459	P&A	Did Not Penetrate Salt	No - Off Dome
29	Cockrell Corp		Seaburn	5S	3904433	5,454	P&A	Did Not Penetrate Salt	No - Off Dome
30	Cockrell Corp		Seaburn	6S	3904434	4,782	P&A	Did Not Penetrate Salt	No - Off Dome
31	Cockrell Corp	X	Seaburn	110S	3905018	2,469	P&A	Slight Salt Penetration	Yes
32	Cockrell Corp		Bowers	10	3904424	5,463	P&A	Did Not Penetrate Salt	No - Off Dome
33	Cockrell Corp		Bowers	5	3904419	5,758	P&A	Did Not Penetrate Salt	No - Off Dome
34	Cockrell Corp		Bowers	3	3904417	5,520	P&A	Did Not Penetrate Salt	No - Off Dome
35	Cockrell Corp		Bowers	13	3904427	4,891	P&A	Did Not Penetrate Salt	No - Off Dome
36	Cockrell Corp		Bowers	1	3904415	6,574	P&A	Did Not Penetrate Salt	No - Off Dome
37	Cockrell Corp		Bowers	9	3904423	5,506	P&A	Did Not Penetrate Salt	No - Off Dome
38	Rimco		Dow	2	3932807	5,531	P&A	Did Not Penetrate Salt	No - Off Dome
39	Cockrell Corp		Bowers	4	3904418	5,700	P&A	Did Not Penetrate Salt	No - Off Dome
40	Cockrell Corp		Bowers	7	3904421	5,418	P&A	Did Not Penetrate Salt	No - Off Dome
41	Cockrell Corp		Bowers	8	3904422	5,375	P&A	Did Not Penetrate Salt	No - Off Dome
42	Neumin Prod		Dow Fee	5E	3932674	5,305	P&A	Did Not Penetrate Salt	No - Off Dome
43	Cockrell Corp		Bowers	11	3904425	4,830	P&A	Did Not Penetrate Salt	No - Off Dome
44	Cockrell Corp		Bowers	12	3904426	4,590	P&A	Did Not Penetrate Salt	No - Off Dome
45	Cockrell Corp		Seaburn	1P	3904428	4,893	P&A	Did Not Penetrate Salt	No - Off Dome
46	Humble Shell		Seaburn	7	3904382	3,499	P&A	Did Not Penetrate Salt	No - Off Dome
47	Humble Shell		Seaburn	2	3904387	1,955	P&A	Did Not Penetrate Salt	Yes
48	Humble-Shell		Seaburn	3	3904388	2,522	P&A	Did Not Penetrate Salt	No - Off Dome
49	Freeport Sulphur		Seaburn	2	3904409	1,177	P&A	Did Not Penetrate Salt	Yes
50	Freeport Sulphur		Seaburn	4	3904412	990	P&A	Did Not Penetrate Salt	Yes
51	Cockrell Corp		Brock	6A	3904447	5,874	P&A	Did Not Penetrate Salt	No - Outside AOR
52	Unknown		Bowers	13	3904427	4,891	P&A	Did Not Penetrate Salt	No - Outside AOR
53	Freeport LNG Dev	X	Cockrell	1A	3932988	4,830	Active	Natural Gas Storage	No
54	Freeport Sulphur		Seaburn	3	3904410	886	P&A	Did Not Penetrate Salt	No - Outside AOR
55	Freeport Sulphur		Seaburn	3A	3904411	884	P&A	Did Not Penetrate Salt	No - Outside AOR
56	Cockrell Corp		Seaburn	115S	3930002	2,690	P&A	Not Deep Enough	No

STATUS	DESCRIPTION
Active	Well is either in brine-mining or natural gas storage service
Location	Well was not drilled
P&A	Plugged and Abandoned

APPENDIX F

AOR WELL RECORDS

Documentation to Establish Proper Plugging and/or Absence of Penetration of Brine-Mining and Storage Interval within the Stratton Ridge Salt Dome for all Wells that are within ¼ Mile of a Proposed Well or are Known to Have Penetrated the Salt Formation

▶ Return each W-1 with plat and $100.00 fee. Make a check or money order payable to the State Treasurer of Texas. Address to:
Railroad Commission of Texas
Oil and Gas Division, Drilling Permits
P. O. Drawer 12967, Capitol Station
Austin, Texas 78711
▶ File a copy of W-1 and plat in RRC District Office.

Col. 13

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Application for Permit to Drill, Deepen, Plug Back, or Re-Enter

▶ Read Instructions on Back

Form W-1
Rev. 9/1/83
483-060

Purpose of filing (mark appropriate boxes):
[X] Drill [ ] Deepen (below casing) [ ] Deepen (within casing) [ ] Plug Back [ ] Re-Enter
[ ] Directional Well [ ] Sidetrack [ ] Amended Permit (enter permit no. at right & explain fully in Remarks)

Enter here, if assigned: API No. ▶ 42- 039- 32760
Permit No. ▶ 515506

1. Operator's Name (exactly as shown on Form P-5, Organization Report)
Dow Chemical Co., The

3. RRC Operator No. 227525
4. RRC District No. 3
5. County of Well Site Brazoria
Rule 37 Case No. ▶

2. Address (including city and zip code)
2301 N. Brazosport Blvd.
Freeport, TX 77541
Salt Dome Operations, Bldg. S-201
956900

6. Lease Name (32 spaces maximum) Dow Fee
7. RRC Lease/ID No. 14753
8. Well No. CT-2
9. Total Depth 4100 ft.

10. Location
• Section _____ Block _____ Survey J. E. Groce Abstract No. A-66
• This well is to be located 3.4 miles in a East direction from Clute, Texas which is the nearest town in the county of the well site.

11. Distance from proposed location to nearest lease or unit line 506 ft.
12. Number of contiguous acres in lease, pooled unit, or unitized tract 2952.2 (OUTLINE ON PLAT.)

Granted 11/21/01

13. FIELD NAME (Exactly as shown on RRC proration schedule). List all established and wildcat zones of anticipated completion. Attach additional Form W-1's as needed to list these zones. One zone per line.	14. Completion depth	15. Spacing pattern (ft.)	16. Density pattern (acres)	17. Number of acres in drilling unit for this well. OUTLINE ON PLAT.	18. Is this acreage assigned to another well on this lease & in this reservoir? If so, explain in Remarks.	19. Distance from proposed location to nearest applied for, permitted, or completed well, this lease & reservoir. (ft.)	20. Oil, gas, or other type well (Specify)	21. No. of applied for, permitted, or completed locations (including this one) on lease in this reservoir. OIL	GAS
* ~~Brine Test Well~~ Wildcat 6001	4100	N/A	N/A	N/A	N/A	N/A	Test Well		
		Code 5							

RECEIVED
R.R.C. OF TEXAS
NOV 20 2001
OIL & GAS DIVISION
AUSTIN, TEXAS

22. Perpendicular surface location from two nearest designated lines:
• Lease/Unit 506' FSL and 556' FEL
• Survey/Section 1994 ~~FSL~~ and 10014 ~~FEL~~

If a directional well, show also projected bottom hole location:
• Lease/Unit
• Survey/Section

23. Is this a pooled unit? FSlySL FSlytL
Yes [ ] ▶ (Attach Form P-12 and certified plat.) No [X]

24. Is Item 17 less than Item 16 (substandard acreage for any field applied for)?
Yes [ ] ▶ (Attach Form W-1A) No [ ]

25. Is this wellbore subject to Statewide Rule 36 (hydrogen sulfide area)? Yes [ ] No [X]
If subject to Rule 36, is Form H-9 filed? Yes [ ] No [ ] ▶ If not filed, explain in Remarks.

26. Do you have the right to develop the minerals under any right-of-way that crosses, or is contiguous to, this tract? If not, and if the well requires a Rule 37 or 38 exception, see instructions for Rule 37.
Yes [X] No [ ]

Remarks
Testwell to determine salt quality at Stratton Ridge.

I certify that information stated in this application is true and complete, to the best of my knowledge.

Mark Eubanks
Signature

Sr. Well Specialist
Name and title of operator's representative

11/13/01
Date: mo. day yr.

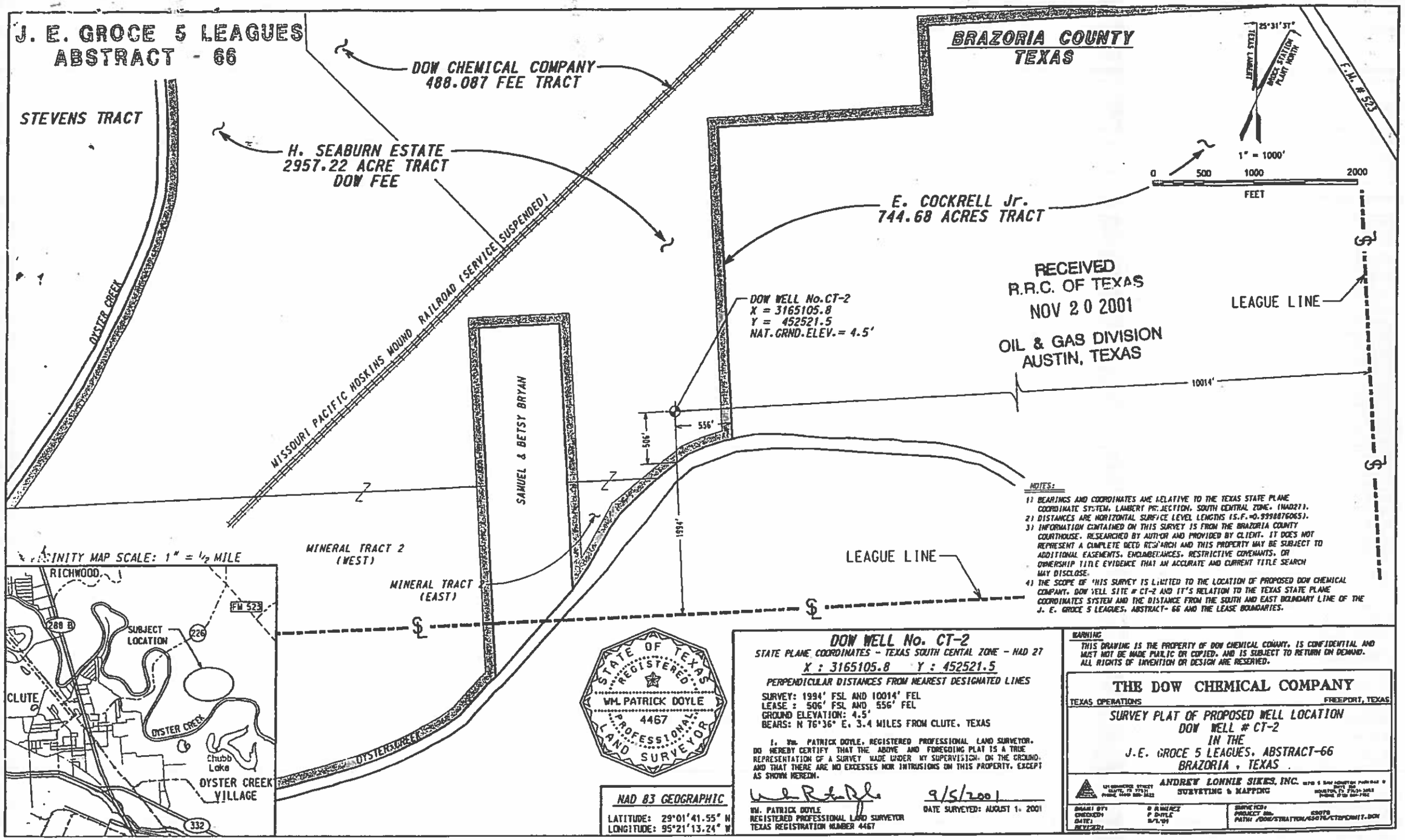
979-238-9371
Tel.: Area Code Number

• RRC Use Only •

203292 290

515506

MAPPING 180 039-32760



NOTES:

1) BEARINGS AND COORDINATES ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, LAMBERT PROJECTION, SOUTH CENTRAL ZONE, (NAD27).
2) DISTANCES ARE HORIZONTAL SURFACE LEVEL LENGTHS (S.F.=0.9998876065).
3) INFORMATION CONTAINED ON THIS SURVEY IS FROM THE BRAZORIA COUNTY COURTHOUSE, RESEARCHED BY AUTHOR AND PROVIDED BY CLIENT. IT DOES NOT REPRESENT A COMPLETE DEED RESEARCH AND THIS PROPERTY MAY BE SUBJECT TO ADDITIONAL EASEMENTS, ENCUMBERANCES, RESTRICTIVE COVENANTS, OR OWNERSHIP TITLE EVIDENCE THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
4) THE SCOPE OF THIS SURVEY IS LIMITED TO THE LOCATION OF PROPOSED DOW CHEMICAL COMPANY, DOW WELL SITE # CT-2 AND IT'S RELATION TO THE TEXAS STATE PLANE COORDINATES SYSTEM AND THE DISTANCE FROM THE SOUTH AND EAST BOUNDARY LINE OF THE J. E. GROCE 5 LEAGUES, ABSTRACT- 66 AND THE LEASE BOUNDARIES.

STATE OF TEXAS
REGISTERED
WM. PATRICK DOYLE
4467
PROFESSIONAL
LAND SURVEYOR

NAD 83 GEOGRAPHIC

LATITUDE: 29°01'41.55" N
LONGITUDE: 95°21'13.24" W

DOW WELL No. CT-2

STATE PLANE COORDINATES - TEXAS SOUTH CENTAL ZONE - NAD 27

X : 3165105.8 Y : 452521.5

PERPENDICULAR DISTANCES FROM NEAREST DESIGNATED LINES

SURVEY: 1994' FSL AND 10014' FEL
LEASE : 506' FSL AND 556' FEL
GROUND ELEVATION: 4.5'
BEARS: N 76°36' E, 3.4 MILES FROM CLUTE, TEXAS

I, WM. PATRICK DOYLE, REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE ABOVE AND FOREGOING PLAT IS A TRUE REPRESENTATION OF A SURVEY MADE UNDER MY SUPERVISION ON THE GROUND AND THAT THERE ARE NO EXCESSES NOR INTRUSIONS ON THIS PROPERTY, EXCEPT AS SHOWN HEREON.

WM. PATRICK DOYLE
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NUMBER 4467

9/5/2001
DATE SURVEYED: AUGUST 1, 2001

WARNING
THIS DRAWING IS THE PROPERTY OF DOW CHEMICAL COMANY, IS CONFIDENTIAL AND MUST NOT BE MADE PUBLIC OR COPIED, AND IS SUBJECT TO RETURN ON DEMAND. ALL RIGHTS OF INVENTION OR DESIGN ARE RESERVED.

THE DOW CHEMICAL COMPANY

TEXAS OPERATIONS FREEPORT, TEXAS

SURVEY PLAT OF PROPOSED WELL LOCATION
DOW WELL # CT-2
IN THE
J.E. GROCE 5 LEAGUES, ABSTRACT-66
BRAZORIA, TEXAS

ANDREW LONNIE SIKES, INC.
SURVEYING & MAPPING

DRAWN BY: D RAMIREZ
CHECKED: P DOYLE
DATE: 9/5/01
REVISED:

SURVEYED:
PROJECT NO.: 10078
PATH: /DOW/STATION/ASSETS/CTEXHIBIT.DGN

Plugging Record

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FORM W - 3
Rev. 12/92
HAL1199

API NO. (if available) 42-039-32760

1. RRC District 03

FILE IN DUPLICATE WITH DISTRICT OFFICE OF DISTRICT IN WHICH WELL IS LOCATED WITHIN THIRTY DAYS AFTER PLUGGING

4. RRC Lease or Id. Number 2

2. FIELD NAME (as per RRC Records) Wildcat

3. Lease Name DOW Fee

5. Well Number 2-CT

6. OPERATOR DOW Chemical Co.

6a. Original Form W-1 Filed in Name of:

10. County Brazoria

7. ADDRESS 2301 Brazosport Blvd., S-201 Freeport, TX 77541-3257

6b. Any Subsequent W-1's Filed in Name of:

11. Date Drilling Permit Issued 11-21-01

8. Location of Well, Relative to Nearest Lease Boundaries of Lease on which this Well is located: 506 Feet From South Line and 556 Feet From East Line of the Lease

12. Permit Number 515506

9a. SECTION, BLOCK, AND SURVEY J.E. Groce

9b. Distance and Direction From Nearest Town in this County 3.4 miles E. of Cluite, TX

13. Date Drilling Commenced 4-29-02

16. TYPE WELL (OIL,GAS,DRY) Dry

Total Depth 4115

17. If Multiple Completion List All Field Names and Oil Lease or Gas ID No's

GAS ID or OIL LEASE #	Oil - O Gas - G	WELL #

14. Date Drilling Completed 5-18-02

18. If Gas, Amt. of Cond. on Hand at time of Plugging

15. Date Well Plugged 6-3-02

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
*19. Cementing Date	5/20/2002	5/20/2002	5/20/2002	5/20/2002	5/21/2002	21-May	21-May	21-May
20. Size of Hole or Pipe in which Plug Placed (inches)	8 1/8	8 1/8	8 1/8	8 1/8	8 5/8	8 5/8	8 5/8	8 5/8
21. Depth to Bottom of Tubing or Drill Pipe (ft.)	4109	3606	3009	2563	2025	1430	956	490
*22. Sacks of Cement Used (each plug)	175	175	175	175	200	160	160	110
*23. Slurry Volume Plumped (cu. ft.)	199.5	199.5	199.5	199.5	228	183	183	125
*24. Calculated Top of Plug (ft.)	3600	3100	2600	2140	1440	960	492	100
25. Measured Top of Plug (if tagged) (ft.)	3593	3078	2563	2131	1434	984	490	100
*26. Slurry Wt. #/Gal.	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
*27. Type Cement	H	H	H	H	H	H	H	H

28. CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT. #/FT.	PUT IN WELL (ft.)	LEFT IN WELL (ft.)	HOLE SIZE (in.)
13 3/8	61#/ft	880	880	17 1/2
8 5/8	24#/ft	1576	1576	12 1/4

29. Was any Non - Drillable Material (Other than Casing) Left in This Well? Yes ___ No XX

29a. If answer to above is "Yes" state depth to top of "junk" left in hole and briefly describe non - drillable material. (Use Reverse Side of Form if more space is needed.)

See form W-15 attached for Plug 9 & 10

RECEIVED
CENTRAL RECORDS
AUG 13 2002
AUSTIN, TEXAS

30. LIST ALL OPEN HOLD AND/OR PERFORATED INTERVALS

FROM NA	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO

JUN 2002

I have knowledge that the cementing operations, as reflected by the information found on this form, were performed as indicated by such information.

* Designates items to be completed by Cementing Company. Items not so designated shall be completed by Operator.

5/21/02
Signature of Cementer or Authorized Representative

Halliburton Energy Services
Name of Cementing Company

AUG 2002 LOG REC'D RECORDS

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

James D. Bundy
REPRESENTATIVE OF COMPANY

Agent
TITLE

6-19-02
DATE

Phone 713-880-4640
A/C NUMBER

SIGNATURE: REPRESENTATIVE OF RAILROAD COMMISSION

N/W
GB

MAPPING 174

039-32760

31. Was Well filled with Mud - Laden Fluid, according to the regulations of the Railroad Commission ☐ Yes ☒ No	32. How was Mud Applied?	33. Mud Weight LBS/GAL

34. Total Depth 4115 Depth of Deepest Fresh Water 800	Other Fresh Water Zones by T.D.W.R. TOP / BOTTOM	35. Have all Abandoned Wells on this Lease been Plugged according to R R C Rules? ☒ Yes ☐ No 36. If NO, Explain

37. Name and Address of Cementing or Service company who mixed and pumped cement plugs in this well Halliburton, 330 Sycamore, Fresno, TX 77545	Date R R C District Office notified of plugging 5-24-02

38. Name(s) and Address(es) of Surface Owners of Well Site

DOW Chemical Co.

38. Was Notice Given Before Plugging to the Above?

FILL IN BELOW FOR DRY HOLES ONLY

40. For Dry Holes, this Form must be accompanied by either a Driller's, Electric, Radioactivity or Acoustical/Sonic Log or such Log must be released to a Commercial Log Service.

☒ Log Attached ☐ Log released to _____ Date _____

Type Logs:

☐ Driller's ☒ Electric ☒ Radioactivity ☒ Acoustical/Sonic

41. Date FORM P-8 (Special Clearance) Filed?

42. Amount of Oil produced prior to Plugging 0 bbls*

* File FORM P-1 (Oil Production Report) for month this oil was produced

RRC USE ONLY

Nearest Field _____

REMARKS

Cement Adds:	1rst Plug	2%CaCl2	5th Plug	2% CaCl2
	2nd Plug	2%CaCl2	6th Plug	2% CaCl2
Sub Surface Tecl	3rd Plug	2% Cacl2	7th Plug	2% CaCl2
Statton Ridge	4th Plug	2% Cacl2	8th Plug	2% CaCl2

Customer

Location

Well Name & Number CT #2

Sales Order Number 1868273

SUB SURFACE TECH
STATTON RIDGE CT#2
BRAZORIA COUNTY TEXAS
SO 1868273

SCANNED

Cementer: Fill in shaded areas
Operator: Fill in other items

Form W-15
Cementing Report
Rev.4/1/83
HAL1199

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report)	2. RRC Operator No.	3. RRC District No.	4. County of Well Site
DOW Chemical Co.	227525	03	Brazoria
5. Field Name (Wildcat or Exactly as Shown on RRC Records)	**6. API No.**		**7. Drilling Permit No.**
Wildcat	42- 03932760		515506
8. Lease Name	**9. Rule 37 Case No.**	**10. Oil Lease/Gas ID No.**	**11. Well No.**
DOW Fee			2-CT

CASING CEMENTING DATA:	SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
			Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date						
13. *Drilled hole size						
*Est. % wash or hole enlargement						
14. Size of casing (in. O.D.)						
15. Top of liner (ft)						
16. Setting depth (ft)						
17. Number of centralizers used						
18. Hrs. waiting on cement before drill-out						
1st slurry — 19. API cement used: No. of sacks >						
1st slurry — Class >						
1st slurry — Additives >						
2nd slurry — No. of sacks >						
2nd slurry — Class >						
2nd slurry — Additives >						
3rd slurry — No. of sacks >						
3rd slurry — Class >						
3rd slurry — Additives >						
1st — 20. Slurry pumped: Volume (cu.ft.) >						
1st — Height (ft.) >						
2nd — Volume (cu.ft.) >						
2nd — Height (ft.) >						
3rd — Volume (cu.ft.) >						
3rd — Height (ft) >						
Total — Volume (cu.ft.) >						
Total — Height (ft.) >						
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?						

22. Remarks

		Cement Adds	
Cusomer	Sub Surface Tech	9th Plug	2% CaCl2
Location	Statton Ridge	10th Plug	2% CaCl2
Well Name & Num	CT #2		
Sales Order:	1868273		

OVER →

CEMENTING TO PLUG AND ABANDON	[illegible]	PLUG #2	PLUG #3	PLUG #4	[illegible]	PLUG #6	PLUG #7	PLUG #8
23. Cementing date	5/21/2002	21-May						
24. Size of hole or pipe plugged (in.)	8 5/8	13 3/8/8 5/8						
25. Depth to bottom of tubing or drill pipe (ft.)	100	30						
26. Sacks of cement used (each plug)	30	20						
27. Slurry volume pumped (cu ft.)	34.2	22.8						
28. Calculated top of plug (ft.)	0	0						
29. Measured top of plug, if tagged (ft.)	0	0						
30. Slurry wt. (lbs/gal)	16.8	16.8						
31. Type cement	H	H						

CEMENTER'S CERTIFICATE I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

W Lance Fielding	Service Supervisor	HALLIBURTON ENERGY SERVICES	X
Name and Title of Cementer's Representative		Cementing Company	Signature

P.O. Box 1172	Fresno,	TX	77545	281-431-2531	5/21/2002
Address	City,	State,	Zip Code	Tel: Area Code Number	Date: Mo. Day Yr.

OPERATOR'S CERTIFICATE I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

James D. Bundy	Agent	
Typed or Printed Name of Operator's Representative	Title	Signature

7020 Portwest Drive, Houston, TX 77024	713-880-4640	6-19-02
Address City, State Zip Code	Tel: Area Code Number	Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c)

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- Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
- Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar. All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain approval of any exception before beginning casing and cementing operations.

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

Cementer: Fill in shaded areas
Operator: Fill in other items

RECEIVED MAY 15 2002

Form W-15
Cementing Report
Rev.4/1/83
HAL1199

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1 Operator's Name (As Shown on Form P-5, Organization Report)	2 RRC Operator No	3 RRC District No.	4 County of Well Site
DOW Chemical CO.	227525	03	Brazoria
5 Field Name (Wildcat or Exactly as Shown on RRC Records)	**6 API No**		**7 Drilling Permit No.**
Wildcat	42-03932760		515506
8 Lease Name	**9. Rule 37 Case No.**	**10. Oil Lease/Gas ID No.**	**11 Well No.**
DOW Fee			2-CT

CASING CEMENTING DATA.	SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
			Single String	Multiple Parallel Strings	Tool	Shoe
12 Cementing Date	05/04/2002					
13. *Drilled hole size	17 1/2					
*Est. % wash or hole enlargement	100					
14. Size of casing (in. O.D.)	13 3/8					
15. Top of liner (ft)						
16 Setting depth (ft)	880					
17. Number of centralizers used	10		T.N.R.C.C. LETTER DATED		10/23/01	
18. Hrs. waiting on cement before drill-out	12		Depth 800			ft.
1st Slurry — 19. API cement used No. of sacks >	430		13 (A) Exception Dated N/A			
Class >	A					
Additives >	see.22		Surface Casing			ft.
2nd Slurry — No. of sacks >	340		D.V. @			ft.
Class >	A					
Additives >	see.22					
3rd Slurry — No. of sacks >						
Class >						
Additives >						
1st — 20 Slurry pumped, Volume (cu ft.) >	920					
Height (ft.) >	Surface					
2nd — Volume (cu ft.) >	421					
Height (ft.) >	606					
3rd — Volume (cu ft.) >						
Height (ft.) >						
Total — Volume (cu ft.) >	1341					
Height (ft.) >	883					
21 Was cement circulated to ground surface (or bottom of cellar) outside casing? Y	yes					

JUN 2002
RRC OF TEXAS
OIL & GAS DIVISION
HOUSTON, TX

22. Remarks

LEAD CEMNT: *3% Salt + .5% Versaset*

TAIL CEMENT: *.3% Versaset*

Sales Order: *1843717*

OVER ▶

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing date								
24. Size of hole or pipe plugged (in.)								
25. Depth to bottom of tubing or drill pipe (ft.)								
26. Sacks of cement used (each plug)								
27. Slurry volume pumped (cu ft.)								
28. Calculated top of plug (ft.)								
29. Measured top of plug if tagged (ft.)								
30. Slurry wt. (lbs/gal)								
31. Type cement								

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Shane Keeler, Service Supervisor	HALLIBURTON ENERGY SERVICES	X
Name and Title of Cementer's Representative	Cementing Company	Signature

P O Box 1172	Fresno	TX	77545	(281)431-2531	05/04/2002
Address	City,	State	Zip Code	Tel: Area Code Number	Date: Mo. Day Yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

James D. Bundy	Agent	
Typed or Printed Name of Operator's Representative	Title	Signature

7020 Portwest Drive, Houston, TX 77024	713-880-4640	June 19, 2002
Address City, State Zip Code	Tel: Area Code Number	Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

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B. Where to file. The appropriate Commission District Office for the county in which the well is located.

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E. **Exceptions and alternative casing programs.** The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. **An operator must obtain approval of any exception before beginning casing and cementing operations.**

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G. **Plugging and abandoning.** Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.

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Cementer: Fill in shaded areas
Operator: Fill in other items

Form W-15
Cementing Report
Rev.4/1/83
HAL1199

RAILROAD COMMISSION OF TEXAS

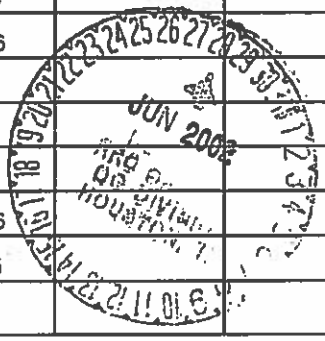
Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report)	2. RRC Operator No.	3. RRC District No.	4. County of Well Site
Dow Chemical Co	227525	03	Brazoria

5. Field Name (Wildcat or Exactly as Shown on RRC Records)	6. API No.	7. Drilling Permit No.
Wildcat	42- 03932760	515506

8. Lease Name	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No.
DOW Fee			2-CT

CASING CEMENTING DATA:		SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
				Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date			14-May				
13. *Drilled hole size			12 1/4				
*Est. % wash or hole enlargement			50%				
14. Size of casing (in. O.D.)			8 5/8				
15. Top of liner (ft)							
16. Setting depth (ft)			1576				
17. Number of centralizers used			10				
18. Hrs. waiting on cement before drill-out			24				
1st Slurry	19. API cement used: No. of sacks >		400				
	Class >		MHLC				
	Additives >		see.22				
2nd Slurry	No. of sacks >		220				
	Class >		PREM				
	Additives >		see.22				
3rd Slurry	No. of sacks >						
	Class >						
	Additives >						
1st	20. Slurry pumped: Volume (cu.ft.) >		728				
	Height (ft.) >		1764				
2nd	Volume (cu.ft.) >		270.6				
	Height (ft.) >		3681				
3rd	Volume (cu.ft.) >						
	Height (ft) >						
Total	Volume (cu.ft.) >		998.6				
	Height (ft.) >		5445				
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?							



22. Remarks

LEAD CEMNT: *2% cacl2 & .25 pps kwik seal*

SUBSURFACE TECH

S.RIDGE ***TAIL CEMENT:*** *2% cacl2*

BRAZORIA COUNTY

Sales Order: ***1857921***

OVER →

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing date								
24. Size of hole or pipe plugged (in.)								
25. Depth to bottom of tubing or drill pipe (ft.)					73			
26. Sacks of cement used (each plug)								
27. Slurry volume pumped (cu.ft.)								
28. Calculated top of plug (ft.)								
29. Measured top of plug, if tagged (ft.)								
30. Slurry wt. (lbs/gal)								
31. Type cement								

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Kelley Wilson	Service Supervisor	HALLIBURTON ENERGY SERVICES	X Kelley Wilson
Name and Title of Cementer's Representative		Cementing Company	Signature

330 SYCAMORE	FRESNO	TX.	77545	281-431-2531	Date: Mo. Day Yr.
Address	City,	State,	Zip Code	Tel: Area Code Number	

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Dist. 3
P&A dry 6/13/02

BAKER HUGHES

INTEQ

P.O. Box 671888
Houston, Texas 77267-1888
Tel 713-625-5400

Railroad Commission of Texas
Oil & Gas Division
P. O. Box 12967
Capitol Station
Austin, Texas 78711

June 21, 2002

Attention: Cathy Garrison

Re ~~Subsurface Construction~~ (Dow Chemical) Co ✓
~~CT-2~~
RRC Lease/Gas ID No. Not Assigned
~~Stratton~~ Field Wildcat
J. E. Groce 5 Leagues, Abstract 66
Brazoria County, Texas ✓
API No. 42-039-32760 ✓ Job No. 307421

Enclosed, please find the original and one copy of the survey performed on the referenced well by Baker Hughes INTEQ (P-5 No. 046289). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Robert Broze Field Engineer	Original Hole	100' – 4,100'	5/19/02	Seeker Gyro Multi-shot

A certified plat on which the bottom hole locations is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letter head address and phone number.

CERTIFIED MAIL

7001 1940 0003 1597 0740

Joe H. Ochoa
Survey Coordinator
N. A. Drilling/Evaluation Region

JHO.doc.527
cc: Subsurface Construction (Dow Chemical)
Attn Mark Erskine S 201
Dow Chemical Company
2301 North Brazosport Blvd.
Freeport, Texas 77541

BAKER HUGHES

INTEQ

P.O. Box 671888
Houston, Texas 77267-1888
Tel 713-625-5400

State of Texas
County of Brazoria

I, ROBERT BROZE, certify that; I am employed by Baker Hughes INTEQ; that I did on the day(s) of 5/19/02 through N/A conduct or supervise the taking of a Seeker Gyro Multi-shot survey **from a depth of** 100 **feet to a depth of** 4,100 **feet**; that the data is true, correct, complete and within the limitations of the tool as set forth by Baker Hughes INTEQ; that I am authorized and qualified to make this report; that this survey was conducted at the request of Subsurface Construction (Dow Chemical) for the CT-2 Well, API No. 42-039-32760 in Brazoria County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Baker Hughes INTEQ.

Robert Broze
Field Engineer

DOW CHEMICAL
DOW CT-2

NO CT-2
slot #1
STRATTON
BRAZORIA COUNTY, TEXAS

S U R V E Y L I S T I N G

by
Baker Hughes INTEQ

Your ref : BHI SEEKER GYRO M/S 100'-4100'
Our ref : svy17957
License :

Date printed : 29-May-2002
Date created : 29-May-2002
Last revised : 29-May-2002

Field is centred on 3165105.800,452521.500,999.00000,N
Structure is centred on 3165105.800,452521.500,999.00000,N

Slot location is n29 1 40.664,w95 21 12.462
Slot Grid coordinates are N 452521.500, E 3165105.800
Slot local coordinates are 0.00 N 0.00 E

Projection type: lambert - Texas South Central (4204), Spheroid: Clarke - 1866

Reference North is Grid North

DOW CHEMICAL
DOW CT-2,NO CT-2
STRATTON,BRAZORIA COUNTY, TEXAS

SURVEY LISTING Page 1
Your ref : BHI SEEKER GYRO M/S 100'-4100'
Last revised : 29-May-2002

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	RECTANGULAR COORDINATES	Dogleg Deg/100ft	Vert Sect
0.00	0.00	0.00	0.00	0.00 N 0.00 E	0.00	0.00
100.00	0.24	144.45	100.00	0.17 S 0.12 E	0.24	-0.12
200.00	0.10	339.55	200.00	0.26 S 0.21 E	0.33	-0.17
300.00	0.13	202.35	300.00	0.29 S 0.14 E	0.21	-0.22
[illegible]).00	0.11	251.35	400.00	0.42 S 0.01 E	0.10	-0.40
500.00	0.15	291.77	500.00	0.41 S 0.20 W	0.10	-0.45
600.00	0.24	298.45	600.00	0.25 S 0.51 W	0.09	-0.41
700.00	0.29	283.88	700.00	0.09 S 0.94 W	0.08	-0.40
800.00	0.43	246.55	800.00	0.18 S 1.53 W	0.26	-0.68
900.00	0.40	238.12	899.99	0.52 S 2.17 W	0.07	-1.21
1000.00	0.40	225.32	999.99	0.95 S 2.72 W	0.09	-1.81
1100.00	0.28	203.37	1099.99	1.42 S 3.06 W	0.18	-2.37
1200.00	0.41	223.30	1199.99	1.90 S 3.40 W	0.18	-2.93
1300.00	0.57	240.59	1299.98	2.40 S 4.08 W	0.21	-3.63
1400.00	0.88	247.99	1399.98	2.93 S 5.22 W	0.33	-4.52
1500.00	1.06	249.86	1499.96	3.54 S 6.80 W	0.18	-5.62
1600.00	1.02	250.55	1599.94	4.15 S 8.50 W	0.04	-6.77
1700.00	1.12	261.18	1699.93	4.60 S 10.31 W	0.22	-7.79
1800.00	1.53	278.26	1799.90	4.56 S 12.60 W	0.57	-8.52
1[illegible].00	1.64	280.12	1899.86	4.11 S 15.33 W	0.12	-9.02
2000.00	1.56	288.30	1999.82	3.43 S 18.03 W	0.24	-9.29
2100.00	1.71	290.82	2099.78	2.48 S 20.72 W	0.17	-9.29
2200.00	1.18	298.26	2199.75	1.46 S 23.02 W	0.56	-9.11
2300.00	0.84	296.52	2299.73	0.64 S 24.58 W	0.35	-8.86
2400.00	0.96	300.54	2399.72	0.11 N 25.96 W	0.14	-8.62

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 43.31 on azimuth 19.63 degrees from wellhead.
Vertical section is from wellhead on azimuth 19.63 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

DOW CHEMICAL
DOW CT-2,NO CT-2
STRATTON,BRAZORIA COUNTY, TEXAS

SURVEY LISTING Page 2
Your ref : BHI SEEKER GYRO M/S 100'-4100'
Last revised : 29-May-2002

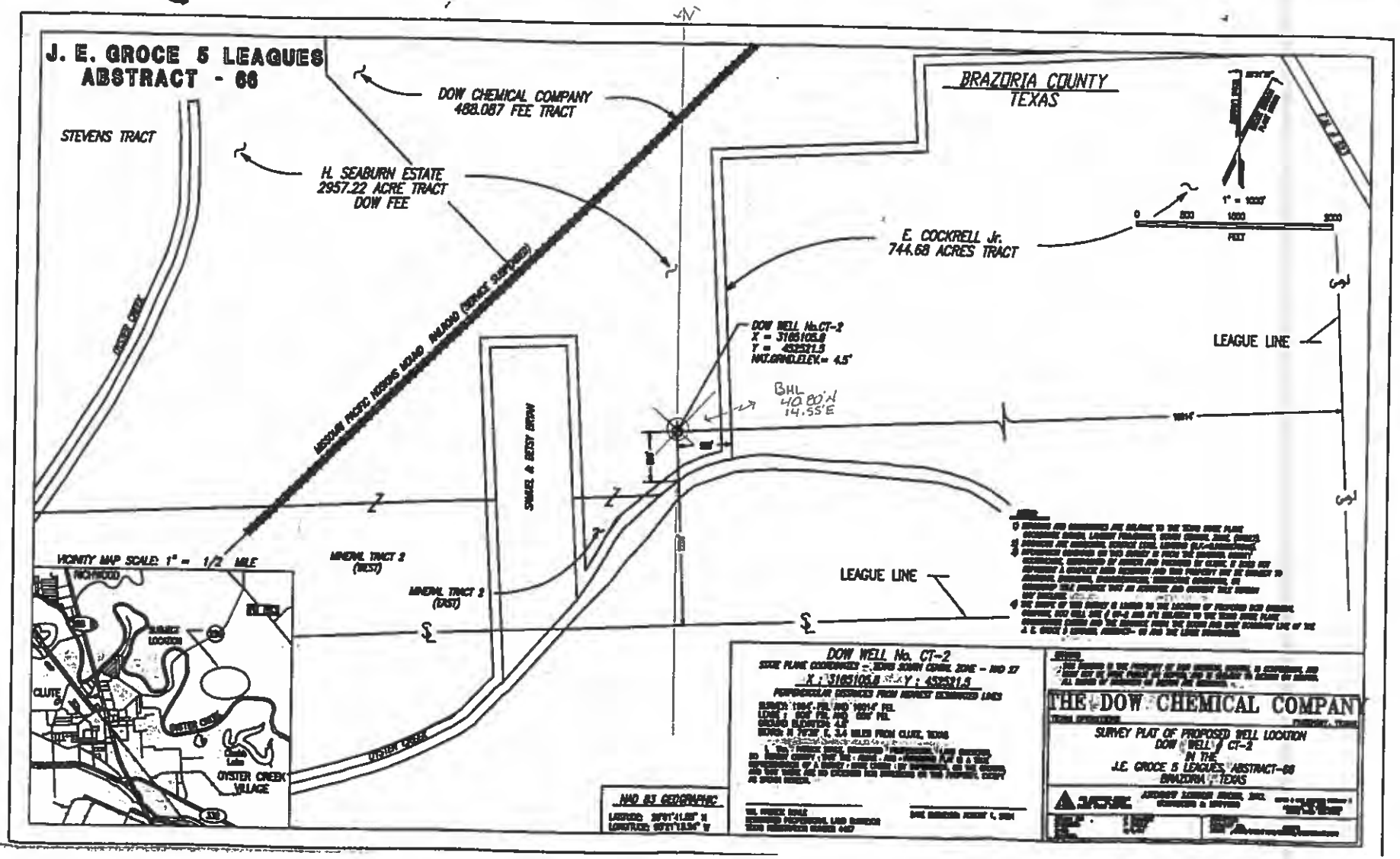
Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	RECTANGULAR COORDINATES	Dogleg Deg/100ft	Vert Sect	
2500.00	0.76	316.15	2499.71	1.01 N 27.14 W	0.31	-8.16	
2600.00	0.68	336.08	2599.70	2.03 N 27.84 W	0.26	-7.44	
2700.00	0.74	357.60	2699.70	3.22 N 28.10 W	0.27	-6.41	
2800.00	0.88	20.85	2799.69	4.59 N 27.86 W	0.35	-5.04	
2900.00	1.02	21.76	2899.67	6.14 N 27.25 W	0.14	-3.38	
3000.00	1.11	22.42	2999.66	7.86 N 26.55 W	0.09	-1.52	
3100.00	1.30	20.66	3099.63	9.81 N 25.78 W	0.19	0.58	
3200.00	1.41	27.65	3199.61	11.96 N 24.81 W	0.20	2.93	
3300.00	1.59	41.42	3299.57	14.09 N 23.33 W	0.40	5.44	
3400.00	1.98	40.89	3399.52	16.43 N 21.28 W	0.39	8.33	
3500.00	2.47	43.07	3499.45	19.32 N 18.67 W	0.50	11.92	
3600.00	2.91	47.28	3599.34	22.61 N 15.34 W	0.48	16.14	
3700.00	3.58	51.06	3699.18	26.29 N 11.05 W	0.70	21.05	
3800.00	3.63	56.47	3798.98	30.00 N 5.99 W	0.35	26.25	BHI SEEKER GYRO MULTISHOT
3900.00	4.30	61.82	3898.74	33.52 N 0.04 W	0.76	31.56	RAN IN DRILLPIPE 100'-4100'
4000.00	4.66	63.87	3998.43	37.08 N 6.91 E	0.39	37.25	SURVEYOR ROBERT BROZE
4100.00	5.09	64.26	4098.07	40.80 N 14.55 E	0.44	43.31	RAN SURVEY 05.19.2002

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 43.31 on azimuth 19.63 degrees from wellhead.
Vertical section is from wellhead on azimuth 19.63 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

Comments in wellpath

MD	TVD	Rectangular Coords.	Comment
3800.00	3798.98	30.00 N 5.99 W	BHI SEEKER GYRO MULTISHOT
3900.00	3898.74	33.52 N 0.04 W	RAN IN DRILLPIPE 100'-4100'
4000.00	3998.43	37.08 N 6.91 E	SURVEYOR ROBERT BROZE
4100.00	4098.07	40.80 N 14.55 E	RAN SURVEY 05.19.2002

NO PROPOSAL


J. E. GROCE 5 LEAGUES
ABSTRACT - 66
DOW CHEMICAL COMPANY
488.087 FEE TRACT
STEVENS TRACT
H. SEABURN ESTATE
2957.22 ACRE TRACT
DOW FEE
BRAZORIA COUNTY
TEXAS
E. COCKRELL Jr.
744.68 ACRES TRACT
DOW WELL No.CT-2
X = 3165105.8
Y = 432521.5
LEAGUE LINE
BHL
40.80'N
14.55'E
SNAKE & BEST DRAIN
MINERAL TRACT 2
(WEST)
MINERAL TRACT 2
(EAST)
LEAGUE LINE
VICINITY MAP SCALE: 1" = 1/2 MILE
RICHWOOD
CLUTE
OYSTER CREEK
OYSTER CREEK VILLAGE
DOW WELL No. CT-2
THE DOW CHEMICAL COMPANY
SURVEY PLAT OF PROPOSED WELL LOCATION
DOW WELL # CT-2
IN THE
J.E. GROCE 5 LEAGUES, ABSTRACT-66
BRAZORIA TEXAS
NAD 83 GEODETIC

API No. 42-039-32913
Drilling Permit # 605592
SWR Exception Case/Docket No.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin

FORM W-1 07/2004

Permit Status: Approved

1. RRC Operator No.	2. Operator's Name (as shown on form P-5, Organization Report)	3. Operator Address (include street, city, state, zip):
285141	FREEPORT LNG DEVELOPMENT, L.P.	333 CLAY STREET STE 5050 HOUSTON, TX 77002

4. Lease Name	5. Well No.
FLNG GAS STORAGE	1T

GENERAL INFORMATION

6. Purpose of filing (mark ALL appropriate boxes): [X] New Drill [ ] Recompletion [ ] Reclass [ ] Field Transfer [ ] Re-Enter [ ] Amended [ ] Amended as Drilled (BHL) (Also File Form W-1D)

7. Wellbore Profile (mark ALL appropriate boxes): [X] Vertical [ ] Horizontal (Also File Form W-1H) [ ] Directional (Also File Form W-1D) [ ] Sidetrack

8. Total Depth	9. Do you have the right to develop the minerals under any right-of-way?	10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)?
6000	[X] Yes [ ] No	[ ] Yes [X] No

SURFACE LOCATION AND ACREAGE INFORMATION

11. RRC District No.	12. County	13. Surface Location
03	BRAZORIA	[X] Land [ ] Bay/Estuary [ ] Inland Waterway [ ] Offshore

14. This well is to be located 3.73 miles in a E direction from CLUTE which is the nearest town in the county of the well site.

15. Section	16. Block	17. Survey	18. Abstract No.	19. Distance to nearest lease line:	20. Number of contiguous acres in lease, pooled unit, or unitized tract:
		GROCE, J E	A-66	2548 ft.	774.68

21. Lease Perpendiculars: 2548 ft from the S line and 2592 ft from the E line.

22. Survey Perpendiculars: 2548 ft from the S'LY S line and 4900 ft from the S'LY E line.

23. Is this a pooled unit?	24. Unitization Docket No:	25. Are you applying for Substandard Acreage Field?
[ ] Yes [X] No		[ ] Yes (attach Form W-1A) [X] No

FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.

26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
03	86526001	STRATTON RIDGE	Storage Well	6000	0.00	1

BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS

Remarks

[FILER Aug 29, 2005 3:23 PM]: ON W1: SALT TEST WELL.

Certificate:

I certify that information stated in this application is true and complete, to the best of my knowledge.

< Walk in Application > — Name of filer

Aug 29, 2005 — Date submitted

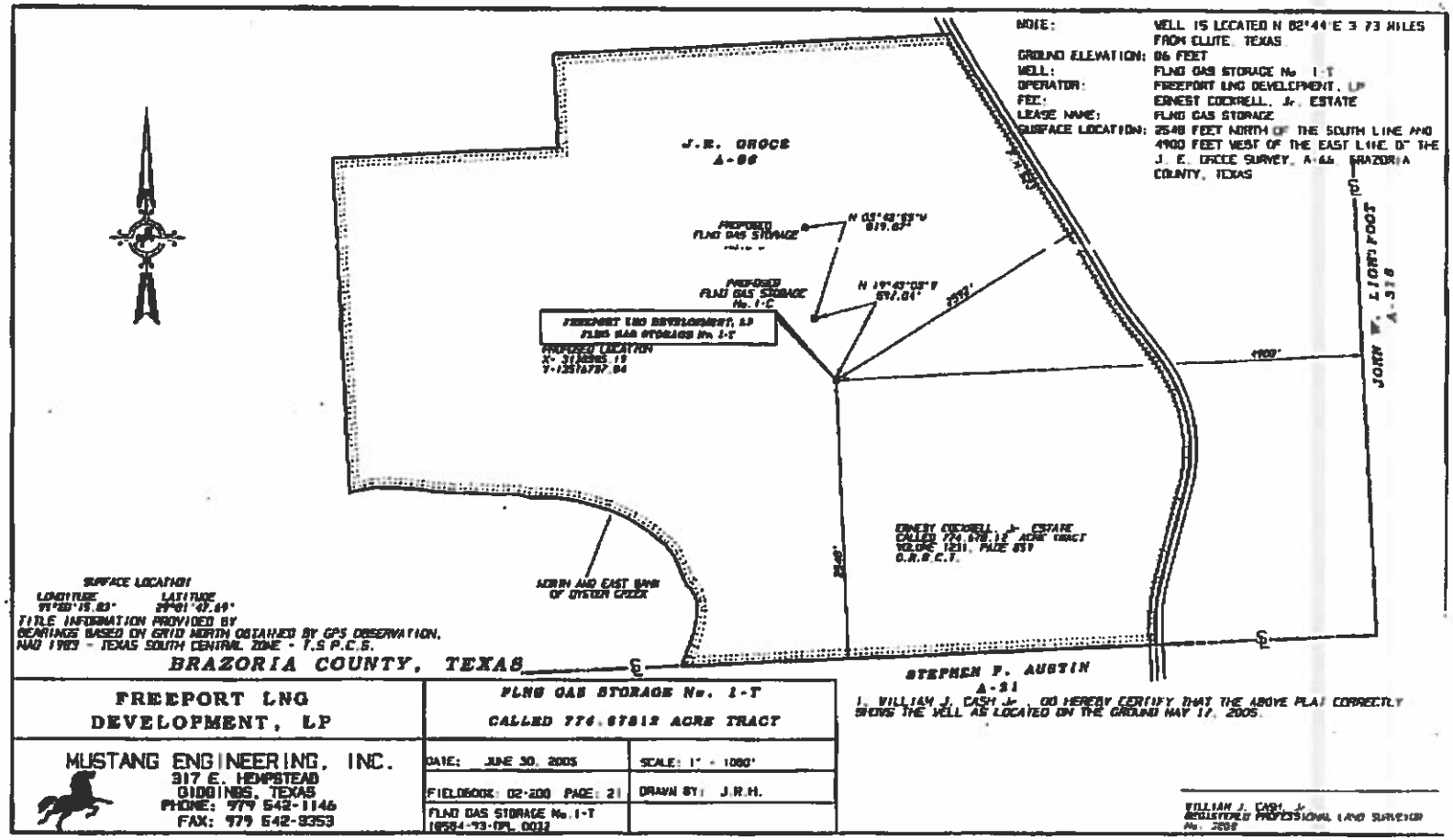
Phone

E-mail Address (OPTIONAL)

RRC Use Only Data Validation Time Stamp: Aug 30, 2005 12:14 PM('As Approved' Version)

RECEIVED
RRC OF TEXAS
AUG 2 9 2005
O&G
AUSTIN TX

08-03-2005 01:51pm From-MUSTANG ENGINEERING - PIPELINE T-900 P 003/003 F-027



I, WILLIAM J. CASH Jr., DO HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY SHOWS THE WELL AS LOCATED ON THE GROUND MAY 17, 2005.

FREEPORT LNG DEVELOPMENT, LP	FLNG GAS STORAGE No. 1-T CALLED 774.87812 ACRE TRACT	
MUSTANG ENGINEERING, INC. 317 E. HEMPSTEAD DICKINSON, TEXAS PHONE: 979 542-1146 FAX: 979 542-9353	DATE: JUNE 30, 2005	SCALE: 1" = 1000'
	FIELDBOOK: 02-200 PAGE: 21	DRAWN BY: J.R.H.
	FLNG GAS STORAGE No. 1-T 19584-93-DPL 0012	

WILLIAM J. CASH, Jr.
REGISTERED PROFESSIONAL LAND SURVEYOR
No. 2698

Plugging Record

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FORM W-3
Rev. 12/92
HAL1199

API NO. (if available) 42-039-32913

1. RRC District 03

FILE IN DUPLICATE WITH DISTRICT OFFICE OF DISTRICT IN WHICH WELL IS LOCATED WITHIN THIRTY DAYS AFTER PLUGGING

4. RRC Lease or Id. Number

2. FIELD NAME (as per RRC Records) Stratton Ridge
3. Lease Name FLNG Gas Storage
5. Well Number 1T
6. OPERATOR Freeport LNG Development, LP
6a. Original Form W-1 Filed in Name of: Freeport LNG Development, LP
10. County Brazoria
7. ADDRESS 333 Clay street Ste 5050 Houston, TX. 77002
8b. Any Subsequent W-1's Filed in Name of:
11. Date Drilling Permit Issued 8-30-05

8. Location of Well, Relative to Nearest Lease Boundaries of Lease on which this Well is located
Feet From 2548' S'LY S Line and 4900' S'LY E Feet From
Line of the 2548' S 2592 ft E Lease
12. Permit Number 605592

9a. SECTION, BLOCK, AND SURVEY Abstract 66 Groce, JE
9b. Distance and Direction From Nearest Town in this County 3.73 miles E direction from Clute
13. Date Drilling Commenced 10-29-05

16. TYPE WELL (OIL,GAS,DRY) Dry (core well)
Total Depth 5524'
17. If Multiple Completion List All Field Names and Oil Lease or Gas ID No's -NA-
GAS ID or OIL LEASE #
Oil - O Gas - G
WELL #
14. Date Drilling Completed 1-9-06

18. If Gas, Amt. of Cond. on Hand at time of Plugging
15. Date Well Plugged 2/10/06

PLUGBACK

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
*19. Cementing Date	12/24/2005	2-9-06	2-10-06					
20. Size of Hole or Pipe in which Plug Placed (inches)	6 3/4"-7 5/8"	6 1/2"	6.765					
21. Depth to Bottom of Tubing or Drill Pipe (ft.)	3137'	6018'	2399					
*22. Sacks of Cement Used (each plug)	110	640	496				PDS	
*23. Slurry Volume Plumped (cu. ft.)	124.3	915	556		CE			
*24. Calculated Top of Plug (ft.)	2639.9'	2400'	Surface		JUL 12 2006			
25. Measured Top of Plug (if tagged) (ft.)	2772'		- 0 -					
*26. Slurry Wt. #/Gal.	17	15.6	16.0					
*27. Type Cement	Premium	H-SALT SAT.	H		AUSTIN, TEXAS			

28. CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT. #/FT.	PUT IN WELL (ft.)	LEFT IN WELL (ft.)	HOLE SIZE (in.)
13 3/8		885'	885'	16"
10 3/4		1737'	1737'	12.25"
7 5/8		2399'	2399'	9.875"

29. Was any Non - Drillable Material (Other than Casing) Left in This Well? Yes No ✓

29a. If answer to above is "Yes" state depth to top of "junk" left in hole and briefly describe non - drillable material. (Use Reverse Side of Form if more space is needed.)

-NA-

30. LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS

FROM 2399'	TO 6018'	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO

I have knowledge that the cementing operations, as reflected by the information found on this form, were performed as indicated by such information.

* Designates items to be completed by Cementing Company. Items not so designated shall be completed by Operator.

Brooke Fontenot
Signature of Cementer or Authorized Representative

Halliburton Energy Services
Name of Cementing Company

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

John C. Kyle — REPRESENTATIVE OF COMPANY
Drilling Superintendent — TITLE
3-24-06 — DATE
Phone 713-651-9301 — A/C NUMBER

John C. Kyle
SIGNATURE, REPRESENTATIVE OF RAILROAD COMMISSION

NW

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RRC OF TEXAS
MAR 24 2006
OG DIVISION
HOUSTON, TX

039-32913

31. Was Well filled with Mud - Laden Fluid, according to the regulations of the Railroad Commission ☑ Yes ☐ No	32. How was Mud Applied? In well from Drilling	33. Mud Weight 10 PPG LBS/GAL

34. Total Depth 5524'	Other Fresh Water Zones by T.D.W.R. TOP / BOTTOM	35. Have all Abandoned Wells on this Lease been Plugged according to R R C Rules? ☑ Yes ☐ No	
Depth of Deepest Fresh Water 700' → PLUGBACK		36. If NO, Explain	

37. Name and Address of Cementing or Service company who mixed and pumped cement plugs in this well: Halliburton Energy Services 1109 Foundation Dr. Caldwell, TX. 77836 / A to Z 1597 Smede Broussard, LA 70518 (Well Abandonment)

Date R R C District Office notified of plugging: 12-19-05

38. Name(s) and Address(es) of Surface Owners of Well Site

Cockrell Interests Inc.
1000 Main Steet Suite 3250
Houston, TX. 77002

38. Was Notice Given Before Plugging to the Above? Yes

FILL IN BELOW FOR DRY HOLES ONLY

40. For Dry Holes, this Form must be accompanied by either a Driller's, Electric, Radioactivity or Acoustical/Sonic Log or such Log must be released to a Commercial Log Service.

☒ Log Attached ☐ Log released to _____ Date _____

Type Logs:

☐ Driller's ☑ Electric ☑ Radioactivity ☑ Acoustical/Sonic

41. Date FORM P-8 (Special Clearance) Filed? -NA-

42. Amount of Oil produced prior to Plugging -NA- bbls*

* File FORM P-1 (Oil Production Report) for month this oil was produced

RRC USE ONLY

Nearest Field _____

REMARKS: No L-1/Log Attached. Log desk Notified for enforcement. DF.

Sabine Storage

Freeport LNG Test #1

Well Owner: Freeport LNG Development, LP.

Sales Order: ***4126609***

Accu Tech
The MWD Company

August 30, 2006

Railroad Commission of Texas
Oil & Gas Division
P.O. Box 12967
Capital Station
Austin, Texas 78711

Attention: Cathy Garrison

Re: Sabine Storage and Operation, Inc.
FLNG Gas Storage Well T-1
Brazoria County, TX
Layne Texas # 2040

039 - 32913

Enclosed please find the original and one copy of the survey(s) performed on the above referenced well by Accu-Tech Technologies, LLC (Operator No.003447). Other information required by your office is as follows:

Name & Title of Surveyor(s)	Paul Eneh Jonathan Dunbar
Drainhole No.	Original
Survey Depths	2,780 ft – 5,132 ft
Date Performed	12/24/05 – 01/02/06
Survey Type	MWD

If any other information is required, please contact me at the number or address below.

Philippe Herve

Philippe Herve
President

Enclosures

Cc: Sabine Storage and Operation, Inc.

039-32913

Accu Tech
The MWD Company

Job Number: 1516
Company: SABINE STORAGE & OPS INC
Lease/Well: FLNG GAS STORE WELL T-1
Location: BRAZORIA
Rig Name: LAYNE TX # 2040
RKB:
G.L. or M.S.L.:

State/Country: TEXAS/ BRAZORIA
Declination:
Grid:
File name: C:\WINSERVE\1516.SVY
Date/Time: 14-Sep-06 / 10:27
Curve Name:

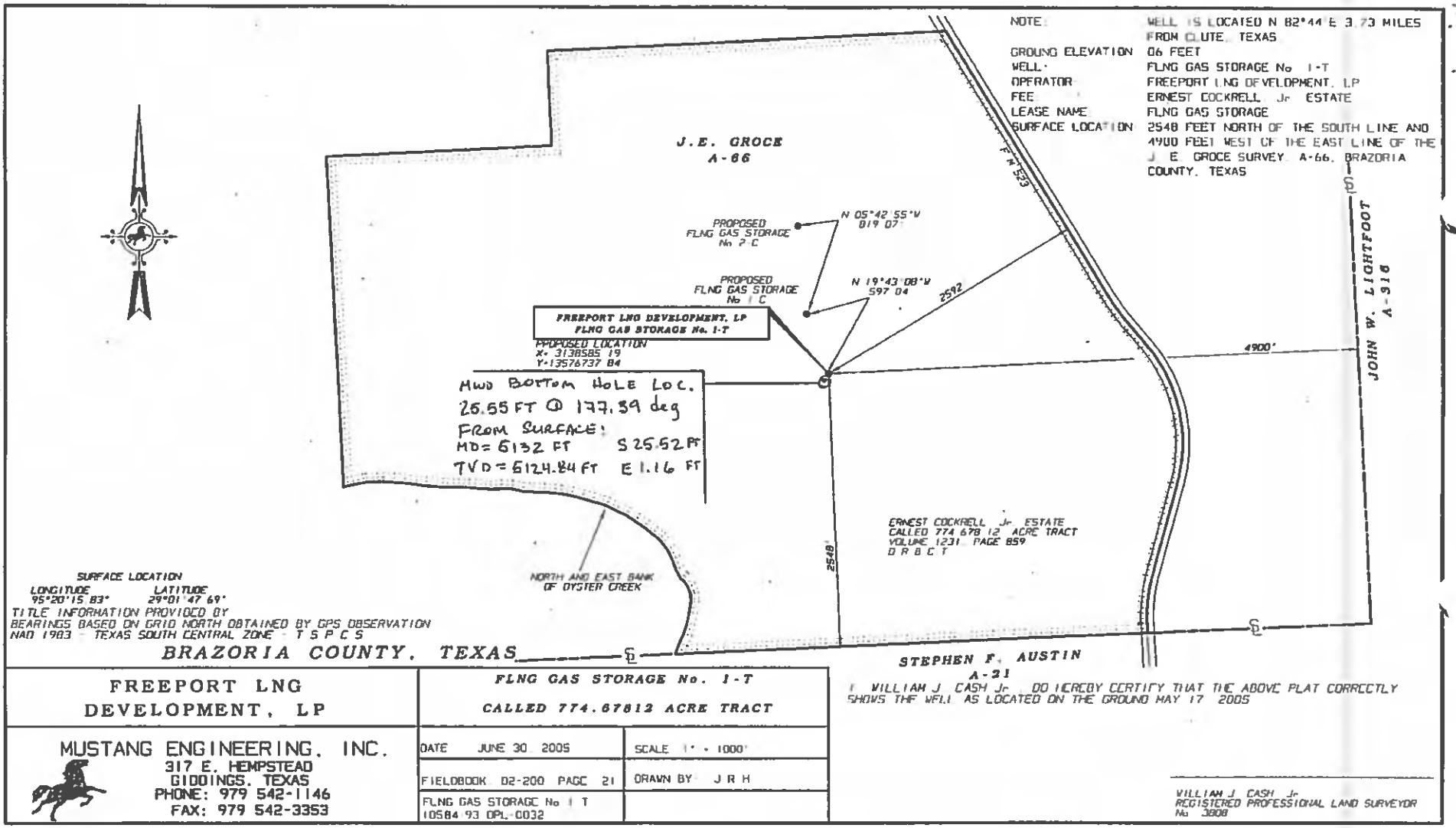
Predator Technologies

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 68.44
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
2700.00	7.25	61.42	2698.00	15.21	51.06	53.08	53.28	73.41	.00
2780.00	6.00	62.90	2777.46	19.53	59.22	62.25	62.35	71.75	1.58
2872.00	2.80	65.30	2869.18	22.66	65.54	69.28	69.35	70.93	3.48
2965.00	.60	330.20	2962.14	24.03	67.36	71.48	71.52	70.37	3.13
3059.00	2.70	248.70	3056.11	23.65	65.05	69.19	69.22	70.02	2.85
3149.00	1.30	239.80	3146.05	22.37	62.20	66.06	66.10	70.22	1.59
3243.00	3.10	250.30	3239.98	20.98	58.88	62.47	62.51	70.39	1.95
3336.00	5.80	252.90	3332.69	18.75	52.02	55.27	55.30	70.18	2.91
3429.00	5.80	251.00	3425.21	15.84	43.09	45.89	45.90	69.82	.21
3523.00	4.90	243.50	3518.80	12.50	35.00	37.15	37.17	70.35	1.21
3612.00	5.30	243.60	3607.45	8.97	27.92	29.26	29.33	72.18	.45
3705.00	5.40	237.00	3700.04	4.68	20.40	20.69	20.93	77.08	.67
3799.00	4.80	229.80	3793.67	-.27	13.69	12.63	13.69	91.11	.93
3890.00	5.80	265.80	3884.31	-3.06	6.19	4.63	6.91	116.31	3.74
3982.00	3.50	314.00	3976.03	-1.45	-.47	-.97	1.52	197.87	4.71
4075.00	1.10	12.40	4068.96	1.39	-2.32	-1.64	2.71	301.03	3.30
4169.00	1.10	57.90	4162.94	2.76	-1.36	-.25	3.07	333.73	.91
4261.00	1.00	29.10	4254.93	3.93	-.22	1.24	3.93	356.77	.58
4354.00	1.10	332.60	4347.91	5.43	-.24	1.77	5.43	357.49	1.07
4448.00	.70	273.70	4441.90	6.27	-1.23	1.16	6.38	348.93	1.01
4542.00	2.00	225.30	4535.88	5.15	-2.97	-.87	5.94	330.06	1.73
4633.00	2.50	207.60	4626.81	2.27	-5.01	-3.83	5.50	294.39	.93
4727.00	2.90	196.70	4720.70	-1.82	-6.65	-6.85	6.89	254.68	.69
4820.00	2.90	186.10	4813.59	-6.41	-7.57	-9.40	9.92	229.74	.58
4914.00	3.40	151.40	4907.45	-11.23	-6.49	-10.16	12.97	210.04	2.06

039-32913

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
5008.00	4.20	146.40	5001.24	-16.54	-3.25	-9.10	16.86	191.12	.92
5100.00	5.00	154.70	5092.95	-22.97	.33	-8.14	22.97	179.19	1.13
5132.00	4.70	169.50	5124.84	-25.52	1.16	-8.30	25.55	177.39	4.01



FREEPORT LNG DEVELOPMENT, LP	FLNG GAS STORAGE No. 1-T CALLED 774.67812 ACRE TRACT	
MUSTANG ENGINEERING, INC. 317 E. HEMPSTEAD GIDDINGS, TEXAS PHONE: 979 542-1146 FAX: 979 542-3353	DATE JUNE 30 2005	SCALE 1" = 1000'
	FIELDBOOK 02-200 PAGE 21	DRAWN BY J R H
	FLNG GAS STORAGE No 1 T 10584 93 OPL-0032	

I, WILLIAM J. CASH Jr. DO HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY SHOWS THE WELL AS LOCATED ON THE GROUND MAY 17 2005

WILLIAM J. CASH Jr.
REGISTERED PROFESSIONAL LAND SURVEYOR
No. 3808

Accu Tech
The MWD Company

MWD Survey Certification

State of Texas
County of Brazoria

I, Philippe Herve, certify that, I am employed by Accu-Tech Technologies, LLC.; that I did on the day(s) of 12/24/05 through 01/02/06 conduct or supervise the taking of the Measurement While Drilling (MWD) survey(s) from a depth of 2,780 feet to a depth of 5,132 feet; that the data is true, correct, complete and within the limitations of the tool set forth by Accu-Tech Technologies, LLC; that I am authorized and qualified to make this report; that this report was conducted at the request of Sabine Storage and Operations, Inc. for the well FLNG Gas Storage Well T-1 and that I have reviewed this report and find that it conforms to the principles and procedures set forth by Accu-Tech Technologies, LLC.

P. Herve P.E.

Philippe Herve
President

Scout Ticket

Thu Jul 21, 2022

42039043840000

General Information

2-B SEABURN

Data Source:	PI	**Country:**	UNITED STATES
API/UWI:	42039043840000	**IC:**	
State/Prov:	TEXAS	**County:**	BRAZORIA
Field:	STRATTON RIDGE	**Operator:**	HUMBLE OIL & REFINING CO
Current Status:		**Current Operator:**	HUMBLE OIL & REFINING CO
Reg. Well Status/Date:			
Initial Class:	DEVELOPMENT WELL (D)	**Final Well Class:**	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL) (D)
Final Status:	DRY & ABANDONED	**Target Objective:**	
Permit:	on Jul 14, 1920	**Hole Direction:**	VERTICAL
First Report Date:	Oct 21, 1991	**Abandonment Date:**	
Projected TD:		**Projected Formation:**	UNKNOWN
Basin:	GULF COAST BASIN	**Formation at TD:**	UNKNOWN
		PRODFit Form at TD:	
Play Name:	MISC GULF COAST BASIN	**Play Type:**	CONVENTIONAL ONSHORE (CONV ONSHR)

Location

Footage NS EW Origin:	1400 FS 5100 FE TX SUR/POR/GRANT			**Data Source:**	PI
Dist, Abs, Survey:	RR DISTRICT 03 66	GROCE JARED E			
Blk, Lge, Lot, Labor:					
Township, Section:					
Lat/Long:	+29.0265735 -95.3381434	**Lat/Long Source:**	IH	**Datum:**	NAD27

Location Narrative

Data Source	Type	Remark
PI	LOCATION	NO LOCATION DETAILS AVAILABLE

Dates and Depths

Data Source:	PI		
Spud:	Jul 24, 1920	**Spud Date Code:**	
TD:	1,799 FT	**TD Date:**	
TVD:		**PlugBack Depth:**	
Formation Code TD:	000UNKWN	**Formation Name TD:**	UNKNOWN
PRODFit Form Code TD:		**PRODFit Form Name TD:**	
Ref. Elevation:		**KB. Elevation:**	
Ground Elevation:	5 FT EG	**LTD:**	
Contractor:			
Completed:	Oct 23, 1920	**Final Drilling:**	
Rig Release Date:		**Rig #:**	
Tool:			

Casing, Liner, Tubing

Casing	Data Source	Size	Base Depth		Cement	PRODFit Top Formation Code	PRODFit Base Formation Code
CASING	PI	12 1/2 IN	233	FT			

Dwights Energydata Narrative

Accumulated through 1997

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Plugging Record

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

8655
APPENDIX B
Page

FORM W - 3
Rev. 12/92
HAL1199

API NO. (if available) 42-039-32912

1. RRC District: 03

FILE IN DUPLICATE WITH DISTRICT OFFICE OF DISTRICT IN WHICH WELL IS LOCATED WITHIN THIRTY DAYS AFTER PLUGGING

2. FIELD NAME (as per RRC Records): Stratton Ridge

3. Lease Name: FLNG Gas Storage

4. RRC Lease or Id. Number:

5. Well Number: 1C-8T5

6. OPERATOR: Freeport LNG Development, L.P.

6a. Original Form W-1 Filed in Name of: Freeport LNG Development, L.P.

10. County: Brazoria

7. ADDRESS: 333 Clay Street, Ste. 5050 Houston, TX 77002

6b. Any Subsequent W-1's Filed in Name of: Freeport LNG Development, L.P.

11. Date Drilling Permit Issued: 04/16/07

8. Location of Well, Relative to Nearest Lease Boundaries of Lease on which this Well is located: 1786 Feet From S Line and 4049 Feet From E Line of the Groce, JE Lease

12. Permit Number: 605593

9a. SECTION, BLOCK, AND SURVEY: 3236'FSL, 6941' FEL JE Groce A-66

9b. Distance and Direction From Nearest Town in this County: 3.36 miles E from Clute, TX

13. Date Drilling Commenced: 10/31/07

16. Type Well (Oil, Gas, Dry): Dry ST

Total Depth: ~~4800~~ 900

17. If Multiple Completion List All Field Names and Oil Lease or Gas ID No's

GAS ID or OIL LEASE #	Oil - O Gas - G	WELL #

14. Date Drilling Completed: 11/18/07

18. If Gas, Amt. of Cond. on Hand at time of Plugging:

15. Date Well Plugged: 11/21/07

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
*19. Cementing Date	11/21/2007	11/21/2007	11/21/2007					
20. Size of Hole or Pipe in which Plug Placed (inches)	39.5	39.5	39.5					
21. Depth to Bottom of Tubing or Drill Pipe (ft.)	900	416	14					
*22. Sacks of Cement Used (each plug)	2500	860	85					
*23. Slurry Volume Pumped (cu. ft.)	2950	1014	100					
24. Calculated Top of Plug (ft.)	650	316	4					
25. Measured Top of Plug (if tagged) (ft.)	650	316	4					
*26. Slurry Wt. #/Gal.	15.6	15.6	15.6					
*27. Type Cement	A	A	A					

28. CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT. #/FT.	PUT IN WELL (ft.)	LEFT IN WELL (ft.)	HOLE SIZE (in.)
42	412#/ft	366'	366'	39.5

29. Was any Non - Drillable Material (Other than Casing) Left in This Well? [ ] Yes [X] No

29a. If answer to above is "Yes" state depth to top of "junk" left in hole and briefly describe non - drillable material. (Use Reverse Side of Form if more space is needed.)

30. LIST ALL OPEN HOLD AND/OR PERFORATED INTERVALS

FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO

I have knowledge that the cementing operations, as reflected by the information found on this form, were performed as indicated by such information

* Designates items to be completed by Cementing Company. Items not so designated shall be completed by Operator.

Signature of Cementer or Authorized Representative

Halliburton Energy Services
Name of Cementing Company

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

John E. Piehl
REPRESENTATIVE OF COMPANY

Project Engineer
TITLE

11/28/07
DATE

713 - 880-4640
AC NUMBER

N/W
SIGNATURE REPRESENTATIVE OF RAILROAD COMMISSION

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O&G DIVISION
HOUSTON TX

039-32912

31. Was Well filled with Mud - Laden Fluid, according to the regulations of the Railroad Commission	[X] Yes [ ] No	32. How was Mud Applied? Pump truck	33. Mud Weight 9.8 LBS/GAL

34. Total Depth 900'	Other Fresh Water Zones by T.D.W.R. TOP BOTTOM	35. Have all Abandoned Wells on this Lease been Plugged *according to R R C Rules?*	[X] Yes [ ] No
Depth of Deepest Fresh Water 700'		36. If NO, Explain	

37. Name and Address of Cementing or Service company who mixed and pumped cement plugs in this well: Halliburton Energy Services 330 W. Sycamore Rd., Fresno TX 77545	Date R R C District Office notified of plugging 11/20/07

38. Name(s) and Address(es) of Surface Owners of Well Site

Pinto Energy Partners, L.P.
1000 Main, Ste. 3250
Houston, TX 77002

38. Was Notice Given Before Plugging to the Above? Yes

FILL IN BELOW FOR DRY HOLES ONLY

40. *For Dry Holes, this Form must be accompanied by either a Driller's, Electric, Radioactivity or Acoustical/Sonic Log or such Log must be* released to a Commercial Log Service.

[ ] Log Attached [ ] Log released to _____ Date _____

Type Logs:

[ ] Driller's [ ] Electric [ ] Radioactivity [ ] Acoustical/Sonic

41. Date FORM P-8 (Special Clearance) Filed?

42. Amount of Oil produced prior to Plugging _____ bbls*

* File FORM P-1 (Oil Production Report) for month this oil was produced

R R C USE ONLY

Nearest Field _____

REMARKS _____

Page 1

APPENDIX B

Plugging Record

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FORM W - 3
Rev. 12/92
HAL1199

API NO. (if available) 42-039-32912

1. RRC District: 03

FILE IN DUPLICATE WITH DISTRICT OFFICE OF DISTRICT IN WHICH WELL IS LOCATED WITHIN THIRTY DAYS AFTER PLUGGING

2. FIELD NAME (as per RRC Records): Stratton Ridge
3. Lease Name: FLNG Gas Storage
4. RRC Lease or Id. Number:
5. Well Number: 1C
OPERATOR: Freeport LNG Development, L.P.
6a. Original Form W-1 Filed in Name of: Freeport LNG Development, L.P.
10. County: Brazoria
ADDRESS: 333 Clay St., Ste 5050 Houston, TX 77002
6b. Any Subsequent W-1's Filed in Name of: Freeport LNG Development, L.P.
11. Date Drilling Permit Issued: 04/16/07

Location of Well, Relative to Nearest Lease Boundaries of Lease on which this Well is located: 1786 Feet From S Line and 4049 Feet From E Line of the Groce, J.E. Lease
12. Permit Number: 605593
9a. SECTION, BLOCK, AND SURVEY: 3236' FSLm 6941' FEL JE Groce A-66
9b. Distance and Direction From Nearest Town in this County: 3.36 miles E from Clute, TX
13. Date Drilling Commenced: 10/07/07

7. TYPE WELL (OIL,GAS,DRY)	Total Depth	17. If Multiple Completion List All Field Names and Oil Lease or Gas ID No's	GAS ID or OIL LEASE #	Oil - O Gas - G	WELL #	14. Date Drilling Completed
Dry	~~4800~~ 904					10/14/07
18. If Gas, Amt. of Cond. on hand at time of Plugging						15. Date Well Plugged: 10/28/07

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
*19. Cementing Date	10/27/2007	10/28/2007						
20. Size of Hole or Pipe in which Plug Placed (inches)	17.5	17.5						
21. Depth to Bottom of Tubing or Drill Pipe (ft.)	742	445						
22. Sacks of Cement Used (each plug)	500	725						
*23. Slurry Volume Pumped (cu. ft.)	590	790						
24. Calculated Top of Plug (ft.)	445	200						
25. Measured Top of Plug (if tagged) (ft.)	445	200	OK TO	ST Adm				
*26. Slurry Wt. #/Gal.	15.6	15.6						
*27. Type Cement	A	A						

28. CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT. #/FT.	PUT IN WELL (ft.)	LEFT IN WELL (ft.)	HOLE SIZE (in.)
42	412#/ft	366	366	39.5

29. Was any Non - Drillable Material (Other than Casing) Left in This Well: Yes X No

29a. If answer to above is "Yes" state depth to top of "junk" left in hole and briefly describe non - drillable material. (Use Reverse Side of Form if more space is needed.)

Top of junk at 742' KB, 712' BGL
non-drllables include drill collars, stabilizer, motor and 17.5 bit

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MAY 14 2008
AUSTIN, TEXAS

30. LIST ALL OPEN HOLD AND/OR PERFORATED INTERVALS

FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO
FROM	TO	FROM	TO

I have knowledge that the cementing operations, as reflected by the information found on this form, were performed as indicated by such information.
Designates items to be completed by Cementing Company. Items not so designated shall be completed by Operator.

Signature of Cementer or Authorized Representative

Halliburton Energy Services
Name of Cementing Company

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

REPRESENTATIVE OF COMPANY
John E. Prold

Project Engineer
TITLE

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DATE

Phone 713 - 880-4640
A/C NUMBER

APR 07 2008
O&G DIVISION
HOUSTON TX

N/W

SIGNATURE: REPRESENTATIVE OF RAILROAD COMMISSION

MAPPING

Dev Ltr attached by D.O.

APPENDIX C

Cementer: Fill in shaded areas
Operator: Fill in other items

Form W-15
Cementing Report
Rev.4/1/83
HAL1199

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report)	2. RRC Operator No.	3. RRC District No.	4. County of Well Site
Freeport LNG Development, L.P.	285141	03	Brazoria

5. Field Name (Wildcat or Exactly as Shown on RRC Records)	6. API No.	7. Drilling Permit No.
Stratton Ridge	42- 039-32912	605593

8. Lease Name	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No.
FLNG Gas Storage		N/A	1C

CASING CEMENTING DATA:	SURFACE CASING	INTERMEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
			Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date						
13. *Drilled hole size						
*Est. % wash or hole enlargement						
14. Size of casing (in. O.D.)						
15. Top of liner (ft)						
16. Setting depth (ft)						
17. Number of centralizers used						
18. Hrs. waiting on cement before drill-out						
1st Slurry — 19. API cement used: No. of sacks >						
Class >						
Additives >						
2nd Slurry — No. of sacks >						
Class >						
Additives >						
3rd Slurry — No. of sacks >						
Class >						
Additives >						
1st — 20. Slurry pumped: Volume (cu.ft.) >						
Height (ft.) >						
2nd — Volume (cu.ft.) >						
Height (ft.) >						
3rd — Volume (cu.ft.) >						
Height (ft) >						
Total — Volume (cu.ft.) >						
Height (ft.) >						
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?						

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O&G DIVISION
HOUSTON TX

22. Remarks

Subsurface Tech	1st Plug	Neat
Statton Ridge Cavern #1	2nd Plug	Neat
Brazoria County		
Sales Order: 5452064	One kick off plug set in two stages	

OVER →

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing date	10/27/2007	28-Nov						
24. Size of hole or pipe plugged (in.)	17.5	17.5						
25. Depth to bottom of tubing or drill pipe (ft.)	742	445						
26. Sacks of cement used (each plug)	500	725						
27. Slurry volume pumped (cu.ft.)	590	790						
28. Calculated top of plug (ft.)	445	200						
29. Measured top of plug, if tagged (ft.)	445	200						
30. Slurry wt. (lbs/gal)	15.6	15.6						
31. Type cement	A	A						

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Chad Keithley Service Supervisor — Name and Title of Cementer's Representative

HALLIBURTON ENERGY SERVICES — Cementing Company

X — Signature

330 Sycamore St. — Address

Fresno, Tx. — City, State,

77545 — Zip Code

281-431-2531 — Tel: Area Code Number

11/2/2007 — Date: Mo. Day Yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

John E. Piehl — Typed or Printed Name of Operator's Representative

Project Engineer — Title

Signature

6925 Portwest Drive, #110 Houston TX 77024 — Address City, State Zip Code

713-880-4640 — Tel: Area Code Number

11/28/07 — Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

A. What to file. An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

* *An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules;*
* Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
* Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. *Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the* Texas Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality *water zones. In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar.* All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain *approval of any exception before beginning casing and cementing operations.*

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, *plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.*

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

ementer: Fill in shaded areas
Operator: Fill in other items

PENDIX C

Form W-15
Cementing Report
Rev. 4/1/83
HAL1199

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

1. Operator's Name (As Shown on Form P-5, Organization Report)	2. RRC Operator No.	3. RRC District No.	4. County of Well Site
Freeport LNG Development, L.P.	285141	03	Brazoria

5. Field Name (Wildcat or Exactly as Shown on RRC Records)	6. API No.	7. Drilling Permit No.
Stratton Ridge	42- 039-32912	605593

8. Lease Name	9. Rule 37 Case No.	10. Oil Lease/Gas ID No.	11. Well No.
FLNG Gas Storage		N/A	1C-ST

CASING CEMENTING DATA:	SURFACE CASING	INTER-MEDIATE CASING	PRODUCTION CASING		MULTI-STAGE CEMENTING PROCESS	
			Single String	Multiple Parallel Strings	Tool	Shoe
12. Cementing Date						
13. *Drilled hole size						
*Est. % wash or hole enlargement						
14. Size of casing (in. O.D.)						
15. Top of liner (ft)						
16. Setting depth (ft)						
17. Number of centralizers used						
18. Hrs. waiting on cement before drill-out						
1st Slurry — 19. API cement used: No. of sacks ▶						
1st Slurry — Class ▶						
1st Slurry — Additives ▶						
2nd Slurry — No. of sacks ▶						
2nd Slurry — Class ▶						
2nd Slurry — Additives ▶						
3rd Slurry — No. of sacks ▶						
3rd Slurry — Class ▶						
3rd Slurry — Additives ▶						
1st — 20. Slurry pumped: Volume (cu.ft.) ▶						
1st — Height (ft.) ▶						
2nd — Volume (cu.ft.) ▶						
2nd — Height (ft.) ▶						
3rd — Volume (cu.ft.) ▶						
3rd — Height (ft.) ▶						
Total — Volume (cu.ft.) ▶						
Total — Height (ft.) ▶						
21. Was cement circulated to ground surface (or bottom of cellar) outside casing?						

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APR 07 2008
O&G DIVISION
HOUSTON TX

22. Remarks

ALL PLUGS STANDARD CLASS A

Sales Order 5508359
Customer Name
SUBSURFACE TECHNOLOGY INC EE
Lease
Stratton Ridge Cavern
Well Number Well #1
Brazoria **County**

CEMENTING TO PLUG AND ABANDON	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7	PLUG #8
23. Cementing date	11/21/2007	11/21/2007	11/21/2007					
24. Size of hole or pipe plugged (in.)	39.5	39.5	39.5					
25. Depth to bottom of tubing or drill pipe (ft.)	900	416	14					
26. Sacks of cement used (each plug)	2500	860	85					
27. Slurry volume pumped (cu.ft.)	2950	1014	100					
28. Calculated top of plug (ft.)	650	316	4					
29. Measured top of plug, if tagged (ft.)	650	316	4					
30. Slurry wt. (lbs/gal)	15.6	15.6	15.6					
31. Type cement	A	A	A					

CEMENTER'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

EFREN MORENO	Halliburton Energy Services	
Name and Title of Cementer's Representative	Cementing Company	Signature

330 W. SYCAMORE	FRESNO	TX	77545	281-431-2531	11/21/2007
Address	City	State	Zip Code	Tel: Area Code Number	Date: Mo. Day Yr.

OPERATOR'S CERTIFICATE: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

John E. Piehl	Project Engineer	
Typed or Printed Name of Operator's Representative	Title	Signature

6925 Portwest Drive #110	Houston	TX	77024	713-880-4640	11 / 28 / 07
Address	City,	State,	Zip Code	Tel: Area Code Number	Date: Mo. Day Yr.

Instruction to Form W-15, Cementing Report

IMPORTANT: Operators and cementing companies must comply with the requirements of the Commission's Statewide rules 8 (Water Protection), 13 (Casing, Cementing, Drilling, and Completion, and 14 (Well Plugging). For offshore operations, see the requirements of Rule 13 (c).

A. What to file. An operator should file an original and one copy of the completed Form W-15 for each cementing company used on a well. The cementing of different casing strings on a well by one cementing company may be reported on one form. Form W-15 should be filed with the following:

* *An initial oil or gas completion report, Form W-2 or G-1, as required by Statewide or special field rules:*
* Form W-4, Application for Multiple Completion, if the well is a multiple parallel casing completion; and
* Form W-3, Plugging Record, unless the W-3 is signed by the cementing company representative. When reporting dry holes, operators must complete *Form W-15, in addition to Form W-3, to show any casing cemented in the hole.

B. Where to file. The appropriate Commission District Office for the county in which the well is located.

C. *Surface casing. An operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas* Department of Water Resources, Austin. Before drilling a well in any field or area in which no field rules are in effect or in which surface casing requirements are not specified in the applicable rules, an operator must obtain a letter from the Department of Water Resources stating the protection depth. Surface casing should not be set deeper than 200 feet below the specified depth without prior approval from the Commission.

D. Centralizers. Surface casing must be centralized at the shoe, above and below a stage collar or diverting tool, if run, and through usable-quality water zones. *In nondeviated holes, a centralizer must be placed every fourth joint from the cement shoe to the ground surface or to the bottom of the cellar.* All centralizers must meet API specifications.

E. Exceptions and alternative casing programs. The District Director may grant an exception to the requirements of Statewide Rule 13. In a written application, an operator must state the reason for the requested exception and outline an alternate program for casing and cementing through the protection depth for strata containing usable-quality water. The District Director may approve, modify, or reject a proposed program. An operator must obtain *approval of any exception before beginning casing and cementing operations.*

F. Intermediate and production casing. For specific technical requirements, operators should consult Statewide Rule 13 (b) (3) and (4).

G. Plugging and abandoning. Cement plugs must be placed in the wellbore as required by Statewide Rule 14. The District Director may require additional cement plugs. For onshore or inland wells, a 10-foot cement plug must be placed in the top of the well, and the casing must be cut off three feet below the ground surface. All cement plugs, except the top plug, must have sufficient slurry volume to fill 100 feet of hole, *plus ten percent for each 1,000 feet of depth from the ground surface to the bottom of the plug.*

To plug and abandon a well, operators must use only cementers approved by the Director of Field Operations. Cementing companies, service companies, or operators can qualify as approved cementers by demonstrating that they are able to mix and pump cement in compliance with Commission rules and regulations.

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RAILROAD COMMISSION OF TEXAS Oil and Gas Division	ELECTRIC LOG STATUS REPORT	JAN 29 2008 O&G DIVISION HOUSTON TX	FORM L-1 Rev. 01-2007

Instructions

When to File Form L-1:
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:
- with the appropriate Commission district office

Filling out Form L-1:
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SEE REVERSE SIDE

SECTION I. IDENTIFICATION

Operator Name: Freeport LNG Development, L.P.	District No. 03	Completion Date: Plugged and Abandoned on 10/27/2007
Field Name: Stratton Ridge	Drilling Permit No. 605593	
Lease Name: FLNG Gas Storage	Lease/ID No. N/A	Well No. 1C
County: Brazoria	API No. **42-039-32912**	

SECTION II. LOG STATUS (Complete either A or B)

A. BASIC ELECTRIC LOG NOT RUN

B. BASIC ELECTRIC LOG RUN. (Select one)

1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.
2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
4. Log attached to (select one):

   (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

   Check here if attached log is being submitted after being held confidential.

   (b) Form P-7, Application for Discovery Allowable and New Field Designation.

   (c) Form W-4, Application for Multiple Completion: Lease or ID No(s). _____ Well No(s). _____

Signature	Director of Engineering Title
James D Bundy Name (print)	713 880 4640 Phone 1/28/08 Date

-FOR RAILROAD COMMISSION USE ONLY-

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RAILROAD COMMISSION OF TEXAS Oil and Gas Division	ELECTRIC LOG STATUS REPORT	FORM L-1 Rev. 01-2007

Instructions

When to File Form L-1:
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:
- with the appropriate Commission district office

Filling out Form L-1:
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SEE REVERSE SIDE

SECTION I. IDENTIFICATION

Operator Name: Freeport LNG Development, L.P.	District No. 03	Completion Date: Plugged and Abandoned on 11/21/2007
Field Name: Stratton Ridge	Drilling Permit No. 605593	
Lease Name: FLNG Gas Storage	Lease/ID No. N/A	Well No. 1C-ST
County: Brazoria	API No. **42-039-32912**	

SECTION II. LOG STATUS (Complete either A or B)

A. BASIC ELECTRIC LOG NOT RUN

B. BASIC ELECTRIC LOG RUN. (Select one)

1. **Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.**
2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).
3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).
4. Log attached to (select one):

   (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

   Check here if attached log is being submitted after being held confidential.

   (b) Form P-7, Application for Discovery Allowable and New Field Designation.

   (c) Form W-4, Application for Multiple Completion: Lease or ID No(s). _____ Well No(s). _____

James D Bundy Signature	Director of Engineering Title
James D Bundy Name (print)	713 880 4640 Phone 1/28/08 Date

-FOR RAILROAD COMMISSION USE ONLY-

HALLIBURTON

FOUR INDEPENDENT ARM CALIPER LOG

COMPANY	FREEPORT LNG DEVELOPMENT, LP
WELL	. _NG GAS STORAGE
FIELD	STRATTON RIDGE 1C - SIDETRACK
COUNTY	BRAZORIA
STATE	TEXAS

COMPANY	FREEPORT LNG DEVELOPMENT, LP		
WELL	FLNG GAS STORAGE		
FIELD	STRATTON RIDGE 1C - SIDETRACK		
COUNTY	BRAZORIA	STATE	TEXAS

API No. 4203932912

Location GROCE, JE SURVEY
A-66
3236' FSL & 6941' FEL

Other Services

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Permanent Datum	GL	Elev. 13.0 ft	Elev.: K.B.	43.6 ft
Log measured from	KB	30.6 ft above perm. Datum	D.F.	42.6 ft
Drilling measured from	KB		G.L.	13.0 ft

Date		16-Nov-07 16:45				
Run No.		2				
Depth - Driller		900.0 ft				
Depth - Logger		900.0 ft				
Bottom - Logged Interval		895.0 ft				
Top - Logged Interval		364.0 ft				
Casing - Driller		42.000 in @ 366.0 ft		@		@
Ca Logger		364.0 ft				
Bit Size		39.500 in		@		@
Type Fluid in Hole		WATER BASED MUD				
Density	Viscosity	9.8 ppg	54.00 s/qt			
PH	Fluid Loss	9.10 pH	13.8 cptm			
Source of Sample		MUD PIT				
Rm @ Meas. Temperature		2.68 ohmm @ 85.00 degF		@		@
Rmf @ Meas. Temperature		2.65 ohmm @ 88.00 degF		@		@
Rmc @ Meas. Temperature		3.20 ohmm @ 89.00 degF		@		@
Source Rmf	Rmc	MEAS.	MEAS.			
Rm @ BHT		@		@		@
Time Since Circulation		1.0 hr				
Time on Bottom		16-Nov-07 17:30				
Max. Rec. Temperature		125.0 degF @ 899.0 ft		@		@
Equipment	Location	11034103	VICT.			
Recorded By		J.SERNA				
Witnessed By		R.BOMAR		B.FARRIS		

Fold here

Service Ticket No.: 5480467 API Serial No.: 4203932912 PGM Version: WL INSITE R2.0 (Build 12)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

Date	Sample No.				
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample					
Rm @ Meas. Temp		@		@	
Rmf @ Meas. Temp.		@		@	
Rmc @ Meas. Temp.		@		@	
Source Rmf	Rmc				
Rm @ BHT		@		@	
Rmf @ BHT		@		@	
Rmc @ BHT		@		@	

RESISTIVITY SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	TWO	Run No.		Run No.		Run No.	
Serial No.	108651	Serial No.		Serial No.		Serial No.	
Model No.	NGRT	Model No.		Model No.		Model No.	
Diameter	3.63"	No. of Cent.		Diameter		Diameter	
Detector Model No.	T-102	Spacing		Log Type		Log Type	
Type	SCINT.			Source Type		Source Type	
Length	4"	LSA [Y/N]		Serial No.		Serial No.	
Distance to Source	NA	FWDA [Y/N]		Strength		Strength	

LOGGING DATA

HALLIBURTON

FOUR INDEPENDENT ARM CALIPER LOG

COMPANY	FREEPORT LNG DEVELOPMENT, LP
WELL	, ‿NG GAS STORAGE
FIELD	STRATTON RIDGE 1C - SIDETRACK
COUNTY	BRAZORIA
STATE	TEXAS

COMPANY FREEPORT LNG DEVELOPMENT, LP

WELL FLNG GAS STORAGE

FIELD STRATTON RIDGE 1C - SIDETRACK

COUNTY BRAZORIA STATE TEXAS

API No. 4203932912

Location GROCE, JE SURVEY
A-66
3236' FSL & 6941' FEL

Other Services

Permanent Datum	GL	Elev. 13.0 ft	Elev.: K.B. 43.6 ft
Log measured from	KB	30.6 ft above perm. Datum	D.F. 42.6 ft
Drilling measured from	KB		G.L. 13.0 ft

Date		16-Nov-07 16:45				
Run No.		2				
Depth - Driller		900.0 ft				
Depth - Logger		900.0 ft				
Bottom - Logged Interval		895.0 ft				
Top - Logged Interval		364.0 ft				
Casin‿ - Driller		42.000 in @ 366.0 ft		@		@
Ca Logger		364.0 ft				
Bit Size		39.500 in		@		@
Type Fluid in Hole		WATER BASED MUD				
Density	Viscosity	9.8 ppg	54.00 s/qt			
PH	Fluid Loss	9.10 pH	13.8 cptm			
Source of Sample		MUD PIT				
Rm @ Meas. Temperature		2.68 ohmm @ 85.00 degF		@		@
Rmf @ Meas. Temperature		2.65 ohmm @ 88.00 degF		@		@
Rmc @ Meas. Temperature		3.20 ohmm @ 89.00 degF		@		@
Source Rmf	Rmc	MEAS.	MEAS.			
Rm @ BHT		@		@		@
Time Since Circulation		1.0 hr				
Time on Bottom		16-Nov-07 17:30				
Max. Rec. Temperature		125.0 degF @ 899.0 ft		@		@
Equipment	Location	11034103	VICT.			
Recorded By		J.SERNA				
Witnessed By		R.BOMAR		B.FARRIS		

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O&G DIVISION
HOUSTON TX

Fold here

Service Ticket No.: 5480467 API Serial No.: 4203932912 PGM Version: WL INSITE R2.0 (Build 12)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

Date	Sample No.				
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample					
Rm @ Meas. Temp		@		@	
Rmf @ Meas. Temp.		@		@	
Rmc @ Meas. Temp.		@		@	
Source Rmf	Rmc				
Rm @ BHT		@		@	
Rmf @ BHT		@		@	
Rmc @ BHT		@		@	

RESISTIVITY SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	TWO	Run No.		Run No.		Run No.	
Serial No.	108651	Serial No.		Serial No.		Serial No.	
Model No.	NGRT	Model No.		Model No.		Model No.	
Diameter	3.63"	No. of Cent.		Diameter		Diameter	
Detector Model No.	T-102	Spacing		Log Type		Log Type	
Type	SCINT.			Source Type		Source Type	
Length	4"	LSA [Y/N]		Serial No.		Serial No.	
Distance to Source	NA	FWDA [Y/N]		Strength		Strength	

LOGGING DATA

Evelyn Rivera - Re: W-3

From: Anthony Motal
To: Evelyn Rivera
Date: 4/21/2008 2:29 PM
Subject: Re: W-3

They should be numbered page 1 and page 2. They drilled 1C first , the hole collapsed, they filled it with cement. They drilled a second hole using the same conductor calling it 1Cst. the second hole collapsed so they plugged to surface and gave up. I hope this makes sense.
Anton....

>>> Evelyn Rivera 04/18/08 2:09 PM >>>
Antone,

Why do we have 2 W-3s for Freeport LNG Development, LP. FLNG Gas Storage #1C and IC ST (039-32912) in Brazoria County, Stratton Field?

Evelyn

Gyrodata Incorporated
1682 W. Sam Houston Pkwy. N.
Houston, Texas 77043

713/461-3146
Fax: 713/461-0920

January 19, 2008

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AUSTIN TX

Railroad Commission of Texas
Oil & Gas Division
P.O. Box 12967
Capitol Station
Austin, Texas 78711

Attn: Ms. Pamela Johns

RE:
Freeport LNG Development, L.P.
FLNG Gas Storage, Well #1C
Permit No. 605593
Groce, J E, Abstract 66
Stratton Ridge
Brazoria County, Texas
API No. 42-039-32912
Certified Mail No. 70070710000463884720

Ms. Johns:

Enclosed, please find the original and one copy of the survey performed on the referenced well by Gyrodata, Inc (P-5 No. 339711). Other information required by your office is as follows:

Name & Title Of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Ed Hillsman Surveyor	Original Hole	Surface – 650'	10/23/07 – 10/24/07	Rate Gyro Multishot

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in the case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,

Tonya Fox
Operations

Enclosure

039-32912

A Gyrodata Directional Survey

for

FREEPORT LNG DEVELOPMENT

Lease: FLNG Gas Storage Well: 1C, 6-5/8" Drillpipe

Location: Rowan #331, Brazoria County, Texas

Job Number: HT1007G_610

Run Date: 24 Oct 2007

Surveyor: Ed Hillsman

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 29.030972 deg. N Longitude: 95.344139 deg. W

Azimuth Correction:
Gyro: Bearings are Relative to True North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

A Gyrodata Directional Survey

Freeport LNG Development
Lease: FLNG Gas Storage Well: 1C, 6-5/8" Drillpipe
Location: Rowan #331, Brazoria County, Texas
Job Number: HT1007G_610

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 25 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0	0.0	0.00 N 0.00 E
0 - 650 FT. RATE GYROSCOPIC MUTLISHOT SURVEY RUN NSIDE 6-5/8" DRILLPIPE ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO ROWAN #331 R.K.B. OF 30 FT.								
100.00	1.65	240.90	S 60 54 W	0.41	99.99	1.4	240.9	0.70 S 1.26 W
150.00	2.02	240.97	S 60 58 W	0.19	149.96	3.0	240.9	1.48 S 2.66 W
200.00	2.06	238.51	S 58 31 W	0.05	199.93	4.8	240.5	2.38 S 4.20 W
250.00	2.24	241.84	S 61 51 W	0.11	249.89	6.7	240.4	3.31 S 5.82 W
300.00	2.39	240.72	S 60 43 W	0.08	299.85	8.7	240.6	4.28 S 7.60 W
350.00	2.73	237.67	S 57 40 W	0.18	349.80	11.0	240.3	5.43 S 9.51 W
360.00	2.66	236.36	S 56 21 W	0.25	359.79	11.4	240.2	5.68 S 9.91 W
370.00	2.65	236.45	S 56 27 W	0.03	369.78	11.9	240.0	5.94 S 10.29 W
380.00	2.75	237.03	S 57 2 W	0.28	379.77	12.4	239.9	6.20 S 10.69 W
390.00	2.70	237.09	S 57 6 W	0.12	389.76	12.8	239.8	6.45 S 11.09 W
400.00	2.53	238.33	S 58 20 W	0.45	399.75	13.3	239.7	6.70 S 11.47 W
410.00	2.67	237.42	S 57 25 W	0.37	409.74	13.7	239.7	6.94 S 11.86 W
420.00	2.87	239.92	S 59 55 W	0.58	419.73	14.2	239.6	7.19 S 12.27 W
430.00	2.33	241.53	S 61 32 W	1.38	429.72	14.7	239.7	7.41 S 12.66 W
440.00	2.80	240.12	S 60 7 W	1.20	439.71	15.1	239.7	7.63 S 13.05 W
450.00	3.20	242.39	S 62 24 W	1.03	449.69	15.6	239.7	7.88 S 13.51 W
460.00	2.76	246.29	S 66 17 W	1.20	459.68	16.2	239.9	8.11 S 13.98 W
470.00	2.49	248.31	S 68 19 W	0.71	469.67	16.6	240.1	8.29 S 14.40 W
480.00	2.50	242.86	S 62 51 W	0.59	479.66	17.0	240.2	8.47 S 14.80 W
490.00	2.49	240.75	S 60 45 W	0.23	489.65	17.5	240.3	8.67 S 15.18 W

A Gyrodata Directional Survey

Freeport LNG Development
Lease: FLNG Gas Storage Well: 1C, 6-5/8" Drillpipe
Location: Rowan #331, Brazoria County, Texas
Job Number: HT1007G_610

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 25 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	CLOSURE AZIMUTH deg.	HORIZONTAL COORDINATES feet	
500.00	2.50	241.11	S 61 6 W	0.04	499.64	17.9	240.3	8.88 S	15.56 W
510.00	2.61	242.18	S 62 11 W	0.30	509.63	18.4	240.3	9.09 S	15.96 W
520.00	2.71	242.11	S 62 7 W	0.24	519.62	18.8	240.4	9.31 S	16.37 W
530.00	2.80	242.69	S 62 42 W	0.25	529.61	19.3	240.4	9.53 S	16.79 W
540.00	2.94	240.22	S 60 13 W	0.45	539.59	19.8	240.4	9.77 S	17.23 W
550.00	2.99	239.30	S 59 18 W	0.18	549.58	20.3	240.4	10.03 S	17.68 W
560.00	2.92	240.54	S 60 32 W	0.24	559.57	20.8	240.4	10.29 S	18.13 W
570.00	2.84	242.32	S 62 19 W	0.31	569.56	21.3	240.4	10.53 S	18.57 W
580.00	2.72	243.63	S 63 38 W	0.33	579.54	21.8	240.5	10.75 S	19.00 W
590.00	2.41	243.65	S 63 39 W	0.76	589.53	22.3	240.6	10.95 S	19.40 W
600.00	2.06	246.70	S 66 42 W	0.94	599.53	22.7	240.6	11.12 S	19.75 W
610.00	1.91	246.55	S 66 33 W	0.37	609.52	23.0	240.7	11.25 S	20.07 W
620.00	1.93	248.17	S 68 10 W	0.14	619.51	23.3	240.8	11.38 S	20.38 W
630.00	2.01	248.14	S 68 9 W	0.20	629.51	23.7	240.9	11.51 S	20.70 W
640.00	2.11	248.54	S 68 32 W	0.26	639.50	24.0	241.0	11.64 S	21.03 W
650.00	2.39	248.75	S 68 45 W	0.69	649.49	24.4	241.2	11.79 S	21.40 W

Final Station Closure: Distance: 24.43 ft Az: 241.15 deg.

gyro/data

Gyrodata Incorporated
1682 W. Sam Houston Pkwy. N.
Houston, Texas 77043

713/461-3146
Fax: 713/461-0920

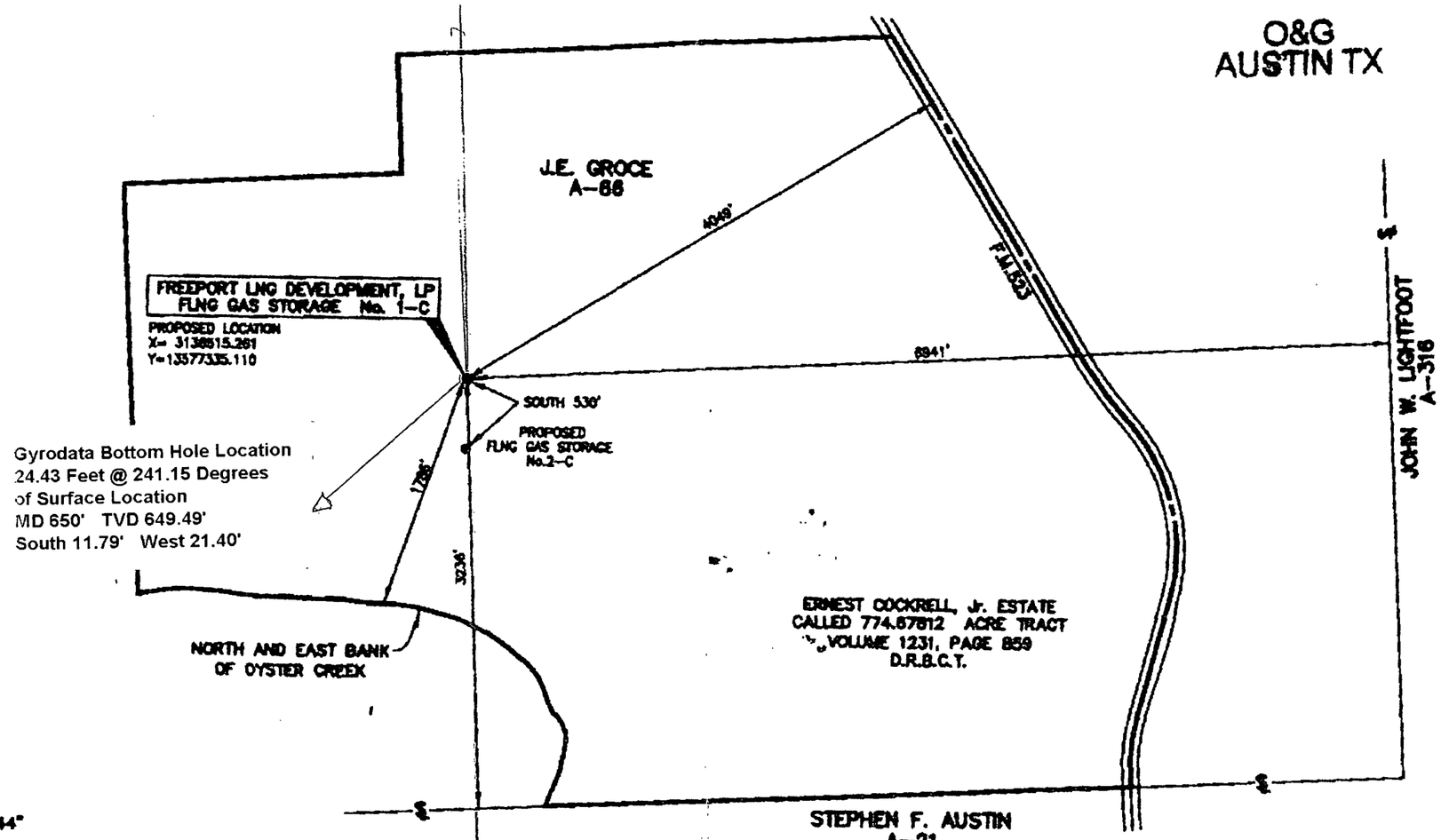
State of Texas
County of Harris

I, Paul E. Neumann, certify that; I am employed by Gyrodata Inc.; that I am authorized and qualified to review the Rate Gyro Multishot survey from a depth of 0 feet to a depth of 650 feet conducted on the day(s) of 10/23/07 through 10/24/07; that this survey was conducted at the request of Freeport LNG Development, L.P. for the FLNG Gas Storage #1C Well API No. 42-039-32912 in Brazoria County, Texas; that the data is true, correct, complete, and within the limitations of the tool as set forth by Gyrodata Inc.; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Gyrodata Inc.

Paul E. Neumann
Operations Manager

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AUSTIN TX

BRAZORIA COUNTY, TEXAS



SURFACE LOCATION

LONGITUDE	LATITUDE
95°20'38.928"	29°01'54.244"

TITLE INFORMATION PROVIDED BY
BEARINGS BASED ON GRID NORTH OBTAINED BY GPS OBSERVATION.
NAD 1983 – TEXAS SOUTH CENTRAL ZONE – T.S.P.C.S.

I, WILLIAM J. CASH Jr., DO HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY SHOWS THE WELL AS LOCATED ON THE GROUND MARCH 24, 2007.

WILLIAM J. CASH, Jr.
REGISTERED PROFESSIONAL LAND SURVEYOR
No. 3806

NOTE:	WELL IS LOCATED N79°36'44"E 3.38 MILES FROM CLUTE, TEXAS.
GROUND ELEVATION:	05 FEET
WELL:	FLNG GAS STORAGE No. 1-C
OPERATOR:	FREEPORT LNG DEVELOPMENT, LP
FEE:	ERNEST COCKRELL, Jr. ESTATE
LEASE NAME:	FLNG GAS STORAGE
SURFACE LOCATION:	3236 FEET NORTH OF THE SOUTH LINE AND 6941 FEET WEST OF THE EAST LINE OF THE J. E. GROCE SURVEY, A-66, BRAZORIA COUNTY, TEXAS

REV.	DATE	BY	DESCRIPTION	CHK.
A	3/07	GD	REVISED THE CAVERN LOCATION	

PROJECT NO. 10584

MUSTANG ENGINEERING, L.P.
HOUSTON, TEXAS

Freeport LNG Development

FLNG GAS STORAGE NO. 1-C
CALLED 774.67812 ACRE TRACT
BRAZORIA COUNTY TEXAS

DRAWN BY: MB	DATE: 6-30-06	DWG. NO.	REV.
CHECKED BY:	DATE:	94-OPL-0002	A
SCALE: 1"=1000'	APP.:		

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

STATE WHETHER THIS IS AN AMENDED APPLICATION TO DRILL OR PLUG BACK. DRILL

SEVERAL COPIES OF PLAT MUST BE FILED WITH THIS APPLICATION. IF MULTIPLE COMPLETION, SEE INSTRUCTIONS FOR DATA REQUIRED ON THIS FORM AND ANY ATTACHED STATEMENT MUST BE CLEARLY LABELED.

ANY ALTERATIONS MUST BE INITIALED BY PERSON SIGNING FOR COMMISSION AGENT.

READ CAREFULLY AND COMPLY FULLY

SPS

Date July 5, 19 61

Name of company or operator

Name Cockrell Corporation

Address Suite 709 The Main Building

City Houston, Texas 77002

Description of lease

Name of lease Seaburn "S"

Number of acres in lease 2957.23 Well No. 110

Number of wells on lease No. 6

Elevation 10 Section No. ____ Block No. ____

(Derrick floor level)

Survey Jared E. Groce, A-66

Type of well Rotary T.S.A.

To be located in Stratton Ridge, South Field

(If offshore state survey, also state distance and direction from nearest Survey Lines) 1500' West Cockrell's Lease

Well No. 110 and 2354' NSL of survey Brazoso

4.0 Miles Northeast direction from

Clute City nearest post office or town

Rotary or Cable Tools Rotary

Date work will start drilling At once

Depth to which you propose to drill 3,000 feet

Date work will start deepening ____

IF LEASE PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED?

Name ____

Address ____

RECEIVED
JUL 6 1961
NUMBER TEXAS

IT IS NOT CONFUSE SURVEY LINES WITH LEASE LINES. IF THE SKETCH OR PLAT SHOWS ONLY A SECTION, BLOCK, OR LOT OUT OF YOUR LEASE, DESIGNATE SAME AS BEING ONLY THAT PART OF THE LEASE.

Where the size of the tract will permit, use a scale of one inch equaling 1000 feet. If less than 5 acres use scale of one inch equaling 100 feet. DESIGNATE SCALE TO WHICH PLAT OR SKETCH IS DRAWN. ALSO DESIGNATE NORTHERLY DIRECTION ON THE SKETCH OR PLAT.

FILL IN BELOW IN THE SPACES RESERVED FOR THIS PURPOSE THE FOOTAGES ASKED FOR.

Nearest distance from proposed location to property or lease line 1200 feet.

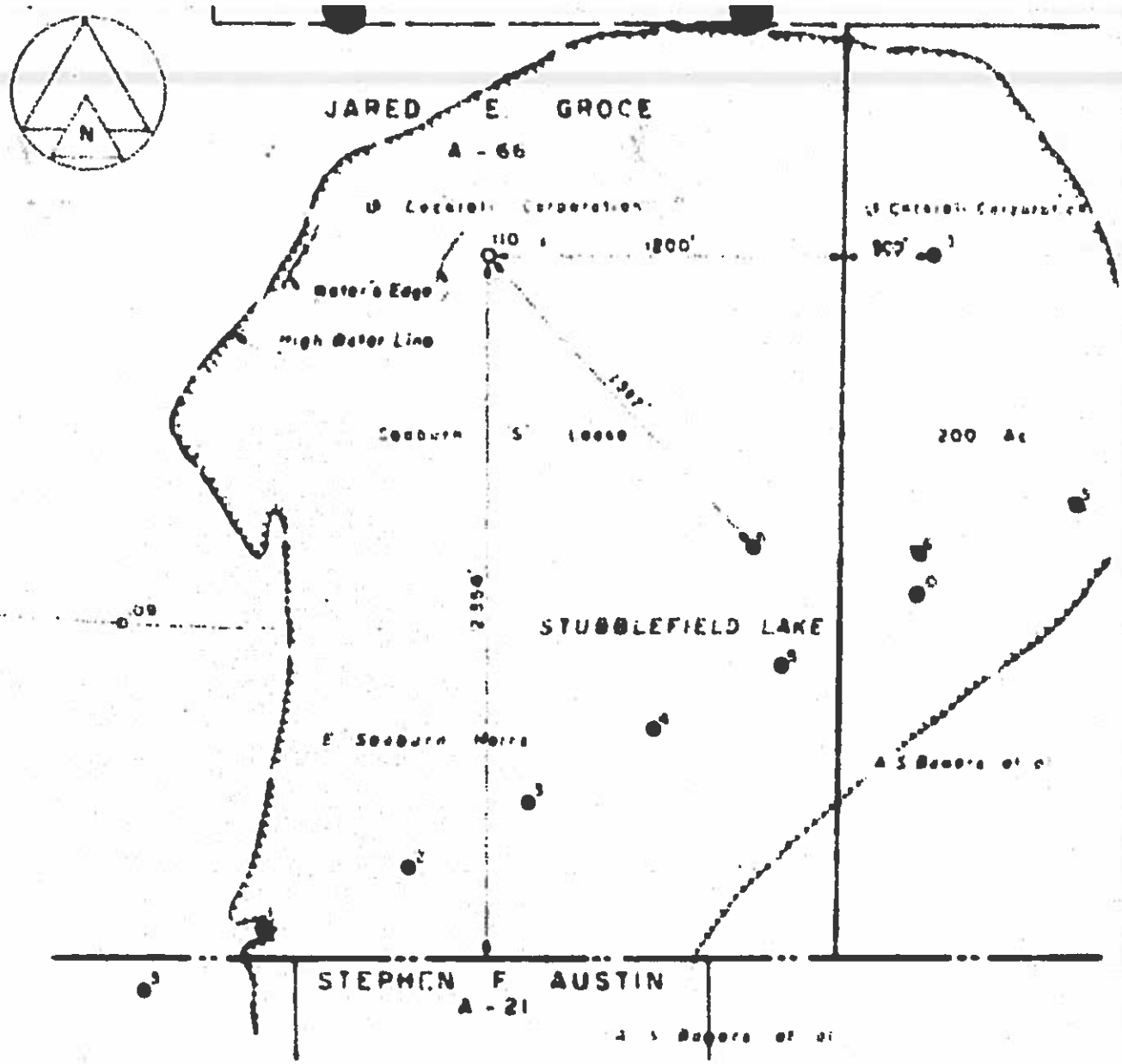
Distance from proposed location to nearest drilling, completed, or applied for well on same lease 1317 feet.

IS THE ACREAGE ON WHICH THIS WELL IS TO BE LOCATED PRESENTLY ASSIGNED TO ANOTHER WELL IN ANY RESERVOIR FOR WHICH THIS PERMIT IS REQUESTED? NO

NOTICE: Before sending in this form be sure that you have given all information requested. Incomplete or incorrect answers will cause delay.

[redacted]

DRAW SKETCH AND MAKE AFFIDAVIT ON REVERSE SIDE



This is to certify that this plat correctly represents the location of the Cockrell Corporation No. 110 Seaburn Heirs "S" Lease, Jared E. Groce League, A-66, Brazoria County, Texas, as staked on the ground by us.

STILL, WILDMAN & CROCKETT

By:

Ben I. Still

Location of No. 110 Seaburn Heirs "S" Lease is 1.1' lower than Location No. 109 Seaburn Heirs "S".

RECEIVED
JUL

COCKRELL CORPORATION
HOUSTON, TEXAS

LOCATION WELL No. 110, SEABURN HEIRS "S" LSE., JARED E. GROCE LGE., A-66, BRAZORIA COUNTY, TEXAS

Scale 1" = 500'
Date June 1967
Field Book 1-W, Page 56

Please Refer to File No.

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Form 14
Application to Plug and Abandon

FILE IN DUPLICATE WITH DEPUTY SUPERVISOR OF DISTRICT IN WHICH WELL IS LOCATED FIVE FULL DAYS PRIOR TO PLUGGING

Company COCKRELL CORPORATION Address Suite 999, The Main Bldg., Houston, Texas 77002

Sec. No. - Block No. - Survey Jared E. Groce A-66 County Brazoria

Well No. 110 Name of Lease Seaburn "S" No. of Acres 2,957.32 Elev. 10'

Name of Field in which well is located Clum Ridge, South

Located 4 Miles SE Direction from Clute City Nearest P. O. or Town

Form 1, "Notice of Intention to Drill," was filed in name of COCKRELL CORPORATION

Drilling Commenced July 6 1967 Drilling Completed July 20 1967

Has this well ever produced Oil? No or Gas? No

Character of Well (Oil, Gas or Dry) Dry Total Depth 2,462'

Date you wish to Plug July 21 1967

Name of Party Plugging Well Cockrell Corporation Address Suite 999, The Main Building, Houston, Texas 77002

Correspondence regarding this well should be sent to: Name Cockrell Corporation
Attention: John W. Neale

Address Suite 999, The Main Building, Houston, Tex. 77002

Initial Production of Gas Volume (MCF) 0 24 hrs. Pressure 0 lbs. per square inch

Initial Production of Oil: Barrels 0

Give notice before Plugging to all available Lease Owners, as required by Rule 101.

When Plugging completed, file final Plugging Report, duly signed and sworn to. All necessary forms will be furnished by the Deputy Supervisor of District in which well is located.

NOTE: If no log available, so state and give all information that can be obtained to as total depth, whether or not cemented, producing formation, water sands, and as near as possible date well was drilled.

General Remarks Dry Hole No exception granted.

FILL OUT PORTION AND APPROVED AS SHOWN BELOW

Received
R.R.C. of Texas
JUL 26 1967

JUL 25 1967

031 20225

Stratigraphic Section

Show All Formations, Especially All Sands and Character and Contents Thereof

Formations	Top	Bottom	Remarks
Sands and Shale	0	730	fresh to Brackish water
Sands and Shale	730	1,930	Breaking to salt water
Loose Material	1,930	2,464	
Rock Salt	2,464	2,469	

Method of shutting off water: Casing — Is water completely shut off? Yes

Amount of water with oil: 0 per cent: 0

I, JOHN W. NEALE

being first duly sworn on oath state that I have knowledge of the facts and matters herein set forth and that the same are true and correct

Representative of Company.

Subscribed and sworn to before me this 25th day of July 19 47

Notary Public
Harris County, Texas

Please Refer to File No.

Form 6
Plugging Report

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

FILE IN DUPLICATE WITH DEPUTY SUPERVISOR OF DISTRICT IN WHICH WELL IS LOCATED

Operator COCKRELL CORPORATION Address Suite 999, The Main Bldg, Houston, Tex. 77002

Sec. No. - Block No. - Survey Jared E. Groce A-[illegible] Brazoria

Well No. 110 Name of Lease Seaburn "J" No. of Acres 2,952.22

Name of Field in which well is located Stratton Ridge, South Date well was plugged 7-21, 1967

Form [illegible] of location in which this well filed in name of COCKRELL CORPORATION

Character of Well at the time of completion Oil [illegible] Gals. Gas [illegible] Cu. Ft. Dry X

Amount well producing when plugged Oil 0 (Initial Production) Gals. Gas 0 (Initial Production) Cu. Ft. Water 0 Gals.

Has this well ever produced oil or gas? No

Total Depth 2,469 feet Top of each producing sand None feet

Was the well filled with mud-laden fluid, according to regulations of the Railroad Commission? Yes

How was mud applied? Circulated

Were plugs used? Yes If so, show all shoulders left for casing, depth of each, and size of casing, also and kind of plugs used, and depth placed, also amount of cement and rock. Was well shot? No.

30 sack cement plug set 917' to 817' and 10 sack plug set 20' to surface.

SIZE PIPE	PUT IN WELL Ft.	PUT IN WELL In.	PULLED OUT Ft.	PULLED OUT In.	LEFT IN WELL Ft.	LEFT IN WELL In.	PACKERS AND SHOES
9-5/8"	908	0	-	-	908	0	
7"	1,975	0	-	-	1,115	0	Top 7" at 860'

State depth found and thickness of all water, oil and gas formations None

Have all abandoned wells on this lease been plugged according to Commission rules? Yes

Manner of confining all oil, gas or water to strata Casing and cement

The names of adjacent lease royalty and landowners with their addresses in each instance as follows

Was notice given before plugging to all available adjacent lease owners as required by Rule 16? No

I JOHN W. NEALE being first duly sworn on oath state that I have knowledge of the facts and the matter herein set forth and that the same are true and correct.

Name [signature] Title Prod. Superintendent

Subscribed and sworn to before me this 31st day of July 1967

[signature]
Notary Public Harris County, Texas

Correspondence regarding this well should be addressed to

Name COCKRELL CORPORATION Address Suite 999, The Main Building
Houston, Texas 77002

029 20225

Form C-33 (Rev. 7-64) The Western Company

AFFIDAVIT ON PLUG TO ABANDON WELL

STATE OF TEXAS)

COUNTY OF Harris)

I, Dan M. Scoville, being of lawful age and having full knowledge of the facts hereinbelow set out, do state:

That I am an employee of The Western Company, employed as a "Service Supervisor" and as such employee am engaged in the operation of The Western Company's equipment employed in the cementing of wells being drilled for oil and or gas.

That on the 20th day of July, 1967, I operated the aforesaid cementing equipment under the direction, supervision and control of COCKRELL CORPORATION (Customer) in the Pumping of cement into said well Number 110 situated on the BRAZOS "A" Lease in BRAZORIA County, Texas, which, according to the customer was for the purpose of plugging and abandoning said well;

That according to the information furnished me by the customer, his agent or representative, a cement plug was placed in said well from

937 feet depth to the 837 feet depth

30 feet depth to the 0 feet depth

_____ depth to the _____ depth

Affiant Dan M Scoville
(Western Company Employee)

.....

BY COMMISSION ORDER, DATED JULY 15, 1965, IT IS NO LONGER NECESSARY TO NOTARIZE CEMENTING AFFIDAVITS

.....

RECEIVED
AUG - 1 1967

039 20225

Form CS-23 (Rev. -1[redacted] THE WESTERN COMPAN[redacted]

CEMENTING AFFIDAVIT

STATE OF TEXAS
COUNTY OF Harris

I, Dan M. Scoville, being of lawful age, do state that I am employed by The Western Company in the capacity of Service Supervisor and that on 7th day of July, 19 67, THE WESTERN COMPANY rented equipment and personnel to COCKRELL CORPORATION for the purpose of cementing the SURFACE string of casing in (prod., prot., surface) their well No. 110 SEABURN "S" lease located in BRAZORIA County, Texas. Information provided me by the customer, his agent or representative, states that the above string of casing was size 9 5/8" O. D. set in 12 1/4" drilled hole, and that casing depth set was 918 feet. Staging Collar set at ------- feet.

For this cement job, I mixed the following:

100	sacks	Trinity Lite-wate + 8% Gel + 7.5% Salt	Admix
100	sacks	Common + 3% $CaCl_2$	Admix
	sacks		Admix

Based upon the above information, according to my cement tables, I have calculated that the above volume of cement will fill up an annular height of 1163 feet between 9 5/8" casing and 12 1/4" hole. Cement through Staging Collar will fill up an annular height of ------ feet. The work performed was done under the direction, supervision and control of the COCKRELL CORPORATION.

CEMENT CIRCULATED ABOVE SURFACE.

Affiant Dan M. Scoville
(Western Company Employee)

(By Commission Order, dated July 15, 1965, it is no longer necessary to notarize Cementing Affidavits)

039 2025

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Date: 8/26/2015
Time: 7:25 AM

PI/Dwights PLUS on CD Scout Ticket

2 SEABURN

State: TEXAS
County: BRAZORIA
Operator: ROXANA PETROLEUM LTD
API: 42039043870000 IC:
Initial Class: D
Target Objective:
Final Well Class: D
Status: D&A-G
Field: STRATTON RIDGE
Permit: on DEC 22, 1917
First Report Date: OCT 10, 1991
Projected TD: Formation: UNKNOWN
Hole Direction: VERTICAL

Location

Footage NS EW Origin:
Dist, Abs, Survey: RR DISTRICT 03 66 GROCE JARED E
Blk, Lge, Lot, Labor:
Township, Dir, Sect:
Surface Remark:
Lat/Long: /
PBHL Footage NS EW Origin:
Dist, Abs, Survey: RR DISTRICT 03
Blk, Lge, Lot, Labor:
Township, Dir, Sect:
From Surface: TVD:
PBHL Remark:
ABHL Footage NS EW Origin:
Dist, Abs, Survey: RR DISTRICT 03
Blk, Lge, Lot, Labor:
Township, Dir, Sect:
ABHL Remark:

Location Narrative:

Type	Remark
LOCATION	LOCATED S 17 DEG E 1500 FROM #1 SEABURN IN SEABURN 1000 AC TR

Dates and Depths

Spud: JAN 01, 1918 Spud Date Code: E
TD: 1920 on
LTD:
TVD:
PlugBack Depth:
Completed: JUL 30, 1918
Formation @ TD: 000UNKWN Name: UNKNOWN
Ref. Elevation:
KB. Elevation:
Ground Elevation: 9 EG
Contractor:
Rig Release Date: Rig #

Drilling Journal

	Obs. #	Interval	Type	Form	Sample
Show	1	1835 - 1835	GAS	-	

42039044090000

General Information

2 SEABURN

Data Source:	PI	**Country:**	UNITED STATES
API/UWI:	42039044090000	**IC:**	
State/Prov:	TEXAS	**County:**	BRAZORIA
Field:	STRATTON RIDGE	**Operator:**	FREEPORT SULPHUR CO
Current Status:		**Current Operator:**	FREEPORT SULPHUR CO
Reg. Well Status/Date:			
Initial Class:	DEVELOPMENT WELL (D)	**Final Well Class:**	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL) (D)
Final Status:	DRY & ABANDONED	**Target Objective:**	
Permit:	on Jul 22, 1930	**Hole Direction:**	VERTICAL
First Report Date:	Nov 29, 1988	**Abandonment Date:**	
Projected TD:		**Projected Formation:**	
Basin:	GULF COAST BASIN	**Formation at TD:**	UNKNOWN
		PRODFit Form at TD:	
Play Name:	MISC GULF COAST BASIN	**Play Type:**	CONVENTIONAL ONSHORE (CONV ONSHR)

Location

Footage NS EW Origin:	13056 FN 10220 FE TX SUR/POR/GRANT			**Data Source:**	PI
Dist, Abs, Survey:	RR DISTRICT 03 66	GROCE JARED E			
Blk, Lge, Lot, Labor:					
Township, Section:					
Lat/Long:	+29.0751017 -95.4248733	**Lat/Long Source:**	IH	**Datum:**	NAD27

Location Narrative

Data Source	Type	Remark
PI	LOCATION	800 FN 800 FE OF LSE

Dates and Depths

Data Source:	PI		
Spud:	Aug 01, 1930	**Spud Date Code:**	
TD:	1,177 FT	**TD Date:**	
TVD:		**PlugBack Depth:**	
Formation Code TD:	000UNKWN	**Formation Name TD:**	UNKNOWN
PRODFit Form Code TD:		**PRODFit Form Name TD:**	
Ref. Elevation:		**KB. Elevation:**	
Ground Elevation:	7 FT EG	**LTD:**	
Contractor:			
Completed:	Dec 06, 1930	**Final Drilling:**	
Rig Release Date:		**Rig #:**	
Tool:			

Drilling Journal

Lease Acres

Lease Acres: 35 ACRE

Dwights Energydata Narrative

Accumulated through 1997

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42039044120000

General Information

4 SEABURN

Data Source:	PI	**Country:**	UNITED STATES
API/UWI:	42039044120000	**IC:**	
State/Prov:	TEXAS	**County:**	BRAZORIA
Field:	STRATTON RIDGE	**Operator:**	FREEPORT SULPHUR CO
Current Status:		**Current Operator:**	FREEPORT SULPHUR CO
Reg. Well Status/Date:			
Initial Class:	DEVELOPMENT WELL (D)	**Final Well Class:**	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL) (D)
Final Status:	DRY & ABANDONED	**Target Objective:**	
Permit:	on Dec 09, 1930	**Hole Direction:**	VERTICAL
First Report Date:	Dec 12, 1988	**Abandonment Date:**	
Projected TD:		**Projected Formation:**	
Basin:	GULF COAST BASIN	**Formation at TD:**	ANHYDRITE
		PRODFit Form at TD:	
Play Name:	MISC GULF COAST BASIN	**Play Type:**	CONVENTIONAL ONSHORE (CONV ONSHR)

Location

Footage NS EW Origin: **Data Source:** PI

Dist, Abs, Survey: RR DISTRICT 03 66 GROCE JARED E

Blk, Lge, Lot, Labor:

Township, Section:

Lat/Long: +29.0829631 -95.4212027 **Lat/Long Source:** IH **Datum:** NAD27

Location Narrative

Data Source	Type	Remark
PI	LOCATION	1950 FE 3690 FN OF NE/COR OF SAM BRYAN TR

Dates and Depths

Data Source:	PI		
Spud:	Dec 19, 1930	**Spud Date Code:**	
TD:	990 FT	**TD Date:**	
TVD:		**PlugBack Depth:**	
Formation Code TD:	602ANDR	**Formation Name TD:**	ANHYDRITE
PRODFit Form Code TD:		**PRODFit Form Name TD:**	
Ref. Elevation:		**KB. Elevation:**	
Ground Elevation:	12 FT EG	**LTD:**	
Contractor:			
Completed:	Jan 10, 1931	**Final Drilling:**	
Rig Release Date:		**Rig #:**	
Tool:			

Drilling Journal

Lease Acres

Lease Acres: 35 ACRE

Formations

Form Code	Top Source	Interpreter	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Desc	Lithology	Age Code
602ANDR	PI		ANHYDRITE	990				DRLR		602

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APPENDIX G

BRINE MINING AND PRODUCT PUMPING SPECIFICATIONS

Preliminary Description of Brine Mining and Product Pumping Equipment to be Installed to Create and Operate the Caverns

New Plant pre-FEED Study

DESIGN BASIS

Pinto Energy Partners, L.P.

Freeport, Texas Facility

Project Number 50293

Rev.0
March 28, 2019

Prepared by:	Checked by:	Approved by:
Steven T. Nolan, P.E.	Russell Tate	John L. Tophoven

Texas Board of Professional Engineers Registration #F-13899
3508 Pasadena Freeway Pasadena, Texas 77503
281.930.8877 Main 281.930.9599 Fax
www.tellepsen.com

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3.0 Construction Specifications 6
4.0 General Site Considerations 7
5.0 Discipline Specific Design Basis 7

1.0 Project Description

1.1. Background and General Project Description

1.1.1. Pinto Energy Partners, L.P. proposed to construct a new brine production plant in Freeport, Texas facility. The new facility will be a duplicate of what was at the Freeport LNG site. A review was completed of the existing facility, along with a preliminary evaluation of existing equipment, infrastructure, the construction and equipment necessary to complete the refurbishment of the project, per engineering design. The Design Basis covers procurement, fabrication and construction standards including purchase of all tanks, equipment, structural steel, piping, electrical, instrumentation and materials as required to restore the facility to its original operation capacity in compliance with current codes.

1.1.2. The proposed Pinto Energy Partners plant is adjacent to the exiting FLNG facility and is located on Hwy 523 just North of Oyster Creek, TX.

1.1.3. Design Basis is formulated, from operation standpoint, on a review reference P&ID's from a similar plant; Dwg. SMF-PR-PID- 200 through SMF-PR-PID-209 and process flow diagrams SMF-PR-PFD-100 and 101.

1.1.4. Property survey referenced includes Doyle & Wachtstetter, Inc. survey dated 2007 and the original description of landlord's property per Brazoria County, Texas records.

1.1.5. Site layout and plan are per Pinto Energy Partners conceptual Google Earth images and Plot Plan SK-50293-001.

2.0 Equipment List & Design Basis

2.1. Equipment List:

The new facility will require the following identified equipment list:

Equipment:	Service:	Description:
7P-4206	Diesel Blanket Pump	27 gpm, 30 hp, 1200 psig
7P-4207	Diesel Charge Pump	30 gpm, 2 hp, 21 psig
7P-5206	Diesel Blanket Pump	27 gpm, 30 hp, 1200 psig
7P-5207	Diesel Charge Pump	30 gpm, 2 hp, 21 psig
7P-6203A/B	Brine Settling Pumps	20 gpm, 125 psig
7P-6202A/B	Brine Pumps	1500 gpm, 450 hp
7P-6000A/B	Raw Water Pumps	1600 gpm, 1000 hp
7P-6201A/B	Brine Booster Pumps	1500 gpm, 200 hp
7P-4208	Water Booster Pump	60 gpm, 15 hp
7P-5208	Water Booster Pump	60 gpm, 15 hp
7T-4204	Diesel Storage Tank	210 bbl, 10'-0" dia x 15'-0" tall, double wall
7T-5204	Diesel Storage Tank	210 bbl, 10'-0" dia x 15'-0" tall, double wall

7T-4203	Brine Surge Tank	5000 bbl
T-4205A/B	Portable Sand Storage Tank	22'-0"L x 8'-0"W x 3'-6"H rectangular tank (4,500 gallon)
7T-4206	Brine Sump Tank	13'-6"L x 6'-0"W x 4'-3"H rectangular tank (2,500 gallon)
7T-4207	Drain Tank	100 gallon poly tank
7C-310A/B	Air Compressor	112 scfm, 25 hp, 125 psig
7DA-310A/B	Air Dryers	165 scfm @ 125 psig
7C-410A/B	Air compressor	112 scfm, 25 hp, 125 psig
7V-310A/B	Air Receiver	30" OD x 72" s/s 240 gal.
7T-200	Open Drain Tank	13'-6"L x 6'-0"W x 4'-3"D 1700 gallon separator tank
7F-6000A/B	Raw Water Strainer	12" 300#
7CY-4201	De-sander	42" OD operate 95 PSIG
7V-4202	Accumulator	30" OD x 40" s/s
7CS-4210	Hydrocyclone Separator	Compatible Component Corporation - BECK-PRJ1-01
7CS-5210	Hydrocyclone Separator	Compatible Component Corporation - BECK-PRJ1-01
7AS-4210	E-Z Tray Air Stripper	Skid Package with one Pump & one Blower
7AS-5210	E-Z Tray Air Stripper	Skid Package with one Pump & one Blower

2.2. Civil/Structural

2.2.1. Pipe racks, elevated site pad, foundation, containment basin walls, area drainage, electrical grounding, tank access, and 350x350 foot well pad will be required for installation and maintenance of equipment.

2.2.2. Structural steel estimate includes all steel as necessary to support the piping, instrumentation and electrical requirements.

2.2.3. New pipelines will be constructed to facilitate on-site product flow, brine, utilities and for pipeline access.

2.2.4. Piping:

Piping will be per the facility layout and the existing Process Flow Diagrams and P&ID's provided. Piping design and installation will include line lists, valve lists, specialty item lists, updates to P&ID's and PFD's, piping tie-in list, code compliance, layout and piping design, pipe sizing, flow rate analysis and stress analysis where required. Piping will also include any, material take-offs and bill of materials.

2.2.5. Design and installation of all piping will be latest ASME B31.3 Specification for facility piping. ASME B31.4 specification for pipeline.

2.3. Electrical & Instrumentation:

Electrical and Instrumentation will be per the facility layout and as required based on the equipment specifications. Instrumentation will be specified and installed in conjunction with the Process Flow Diagrams and P&ID's. Electrical design and installation will also include design and installation of new electrical utilities to the new equipment, pumps and to meet the facility needs.

2.3.1. All design and construction of electrical and instrumentation will be per Pinto Energy Partners standards and specifications and per current electrical code.

2.3.2. Electrical integrity inspection of the existing facility MCC building, cable trays, grounding, lighting and some existing electrical infrastructure will be required to verify its condition and acceptability for use in the new operation per NEC code.

2.3.3. New electrical MCC equipment, cable, conduit, field equipment connections, electrical panels and installation must meet current NEC code.

2.3.4. Instrumentation required per P&ID and PFD's. All instrumentation will be new and will be specified and procured in accordance with the equipment, valves.

3.0 Construction Specifications

3.1 Contractor is responsible for ensuring all installations meet applicable codes and standards. The codes, standards, and specifications of the following organizations shall be interpreted as the minimum requirements applicable to this specification. All codes, standards, and specifications referenced here are meant to be the latest edition and include latest addenda, issued at project initiation.

- American National Standards Institute (ANSI)
- American Institute of Steel Construction (AISC)
- American Petroleum Institute (API)
- American Society of Civil Engineers (ASCE)
- American Society of Heating, Refrigerating, Air Conditioning Engineers (ASHRAE)
- American Society of Mechanical Engineers (ASME)
- American Society of Testing and Materials (ASTM)
- American Welding Society (AWS)
- GE Global Asset Protection Services (GE GAP)
- Industrial Cable Engineers Association (ICEA)
- Instrument Society of America (ISA)
- Institute of Electrical and Electronic Engineers (IEEE)
- National Electric Code (NEC)
- National Electrical Manufacturers Association (NEMA)
- National Fire Protection Association (NFPA)
- Occupation Safety and Health Administration (OSHA)

- Tubular Exchanger Manufacturers Association (TEMA)
- Uniform Building Code (UBC)
- Underwriters Laboratories Inc. (UL)
- US Environmental Protection Agency (EPA)
- Texas Commission on Environmental Quality (TCEQ)
- United States Coast Guard (USCG)
- United States Corps of Engineers (USACE)
- The engineering and design shall comply with and conform to the latest edition of all applicable federal, state and local regulations, plus all codes and standards referenced therein, in effect at the time of Fabrication. Engineering and design shall be performed in accordance with Recognized and Generally Accepted Good Engineering Practices (RAGAGEP). All engineering design work performed shall be under the direct supervision of a qualified Professional Engineer.

4.0 General Site Consideration:

The overall site will include access ways and roadways to access all major equipment items. Roadways and access ways will be designed for vehicular traffic as well as some staging areas near the equipment for maintenance related purposes.

4.1 Design Conditions:

4.1.1 Wind speed: 140 mph

4.1.2 Temperature for Plant Design: 20°F to 110°F

4.1.3 Temperature for Plant Operation: 30°F to 105°F

4.1.4 Product Temperature: 105°F Maximum

4.1.5 Pipeline: Pipeline piping to be in accordance with ASME B31.4. Piping from the incoming MOV to the pumps and equipment on site shall be in accordance with ASME B31.3.

5.0 Discipline Specific Design Basis

5.1 Structural Steel:

5.1.1 Structural steel will be evaluated in accordance with ASCE, AISC and UBC standards.

5.1.2 All structural steel modifications will be detailed and design load capacities and applicable information included in the Civil Structural notes and engineered drawings.

5.1.3 Estimate excludes fabrication and installation of all necessary new structural steel in this project.

5.1.4 All exterior structural steel will be hot dipped galvanized.

5.2 Piping/Mechanical:

5.2.1 Estimate includes design, fabrication and installation of all new piping. Contractor is responsible for Quality Control and documentation of compliance to specifications.

5.2.2 Quality Control of the pipe construction:

5.2.2.1 All piping to be constructed according to the Pinto Energy Partners Pipe Specifications.

5.2.2.2 10% X-ray and quality control of the pipe welding process as

per the codes and piping specification.

5.2.2.3 Mill specs and documentation of pipe materials.

5.2.2.4 Certified welders used for pipe construction.

5.2.2.5 Pressure testing as per ASME code.

5.3 Painting and Coatings:

5.3.2 Structural Steel to be hot Dip Galvanized.

5.3.3 Painting or coating of pipe as per Pinto Energy Partners Specifications. Color Code to be followed.

5.3.4 Contractor will maintain a QC process for coatings and will document it.

5.3.5 All piping and equipment shall be painted as specified in the technical documents, standards, and line lists. The Pinto Energy Partners painting and coating specifications for piping and structural steel must be followed. The color code for paint will be followed. All painting labor and materials shall be provided by the contractor.

5.4 Electrical and Instrumentation:

5.4.1 Installation of electrical and Instrumentation as detailed in P&IDs.

5.4.2 All electrical and instrumentation will be in compliance with Pinto Energy Partners Engineering Practices.

5.4.3 Instrumentation is considered new and will be specified, procured and installed per existing P&ID's.

Brine Pumping Facility Pre-FEED Study

DESIGN BASIS

Pinto Energy Partners, L.P.

Freeport, Texas Facility

Project Number 50296

Rev.1
May 29, 2019

Prepared by:	Checked by:	Approved by:
Steven T. Nolan, P.E.	Russell Tate	Adam Wood

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1.0 Project Description

1.1. Background and General Project Description

1.1.1. Pinto Energy Partners, L.P. proposed to construct a new brine cavern storage facility in Freeport, Texas facility. The new facility will include a brine pumping station, brine ponds and will interconnect the two crude storage caverns. The two caverns are capable of 1 million barrel of crude movement to and from cavern storage. The site will include both ingress and egress pipeline connections and site piping. The pipeline tie-in is to the on-site 40" DOE / ExxonMobil pipeline. The Design Basis covers procurement, fabrication and construction standards including purchase of all civil work, pumps, equipment, structural steel, piping, electrical, instrumentation and materials as required to meet the required ingress / egress flow rates for the facility.

1.1.2. The proposed Pinto Energy Partners plant is located on Hwy 523 just North of Oyster Creek, TX.

1.1.3. Design Basis is formulated from site review existing pipeline layout, proposed brine pond and storage well locations.

1.1.4. Property survey referenced includes Doyle & Wachtstetter, Inc. survey dated 2007 and the original description of landlord's property per Brazoria County, Texas records.

1.1.5. Site layout and plan are per Pinto Energy Partners conceptual Google Earth images and Plot Plan 50296-SK-C-002.

2.0 Equipment List & Design Basis

2.1. Equipment List:

The new facility will require the following identified equipment list:

Equipment:	Service:	Description:
7P-7000B	Water Jocky Pump	200 gpm, 50 hp, 100 psig
7P-7001A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7001B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7002A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7002B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7003A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7003B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7004A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7004B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7005A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7005B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7006A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7006B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7007A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7007B	Brine Pump	4400 gpm, 2000 hp, 600 psig

Equipment:	Service:	Description:
7P-7008A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7009B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7010A	Brine Pump	4400 gpm, 2000 hp, 400 psig
7P-7010B	Brine Pump	4400 gpm, 2000 hp, 600 psig
7P-7011A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7011AB	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7012A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7012B	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7013A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7013B	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7014A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7014A	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7015A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7015A	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7016A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7016A	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7017A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7017A	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7018A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7018A	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7019A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7019A	Crude Pump	4400 gpm, 2000 hp, 800 psig
7P-7020A	Crude Pump	4400 gpm, 2000 hp, 400 psig
7P-7020A	Crude Pump	4400 gpm, 2000 hp, 800 psig
7F-7011	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7012	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7013	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7014	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7015	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7016	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7017	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7018	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7019	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7020	Basket Strainer	18"-300#RF 200% CROSSSECTIONAL OPENINGS
7F-7011	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7012	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7013	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7014	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7015	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7016	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7017	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7018	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS

7F-7019	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7F-7020	Basket Strainer	18"-600#RF 200% CROSSSECTIONAL OPENINGS
7M-7021	Custody Meter	28'x60' (12) Coriolis Meter Skid with Prover Connections
7M-7022	Custody Meter	28'x60' (12) Coriolis Meter Skid with Prover Connections

2.2. Civil/Structural

2.2.1. Pipe racks, elevated site pad, equipment foundations, brine ponds and related sumps, area drainage, electrical equipment foundations and elevated pads, grounding, pipeline access, piping and related equipment foundations, access roadways and site preparation to and from well pads will be required for installation and maintenance of equipment. Brine storage ponds will have total of 4 million bbl capacity.

2.2.2. Structural steel estimate includes all steel as necessary to support the piping, instrumentation and electrical requirements.

2.2.3. New pipelines and metering stations will be constructed to facilitate on-site product flow, brine, utilities and for pipeline access.

2.2.4. Piping:

Piping will be per the facility layout and the P&ID 50296-SK-PID-001 provided. Piping design and installation will include line lists, valve lists, specialty item lists, updates to P&ID's and PFD's, piping tie-in list, code compliance, layout and piping design, pipe sizing, flow rate analysis and stress analysis where required. Piping will also include any, material take-offs and bill of materials.

2.2.5. Pumps & Equipment:

Pumps will be sized and specified to meet the flow rate requirements of 43,750 gpm brine / crude oil and manage movement of up to 1 million bbls per day of crude into cavern storage or out of storage via the existing DOE / ExxonMobil 40" pipeline. The pumps proposed have 10 sets of pumps in parallel, each rated for 4,400 gpm with a combined rated capacity of 44,000 gpm at the required pressures for both brine service to cavern and crude service to pipeline. A second option was considered when estimating the pumps for this project. The second option included four horizontal multi-stage pumps for brine service and four pumps for crude to pipeline service, each rated at 10,937 gpm for a combined flow rate of 43,750 gpm.

2.2.6. Design and installation of all piping will be latest ASME B31.3 Specification for facility piping. ASME B31.4 specification for

pipeline. The majority of the site will be per B31.4 specification.

2.3. Electrical & Instrumentation:

Electrical and Instrumentation will be per the facility layout and as required based on the equipment specifications. Instrumentation will be specified and installed in conjunction with the Process Flow Diagrams and P&ID's. Electrical design and installation will also include design and installation of new electrical utilities to the new equipment, pumps and to meet the facility needs.

2.3.1. All design and construction of electrical and instrumentation will be per Pinto Energy Partners standards and specifications and per current electrical code.

2.3.2. Electrical infrastructure will include new MCC buildings for pumps and equipment, cable trays, grounding, lighting and the various electrical infrastructure required to meet the revised site needs.

2.3.3. New electrical MCC equipment, cable, conduit, field equipment connections, electrical panels and installation must meet current NEC code. All instrumentation will be new and will be specified and procured in accordance with the P&ID's and per equipment and piping design requirements.

3.0 Construction Specifications

3.1 Contractor is responsible for ensuring all installations meet applicable codes and standards. The codes, standards, and specifications of the following organizations shall be interpreted as the minimum requirements applicable to this specification. All codes, standards, and specifications referenced here are meant to be the latest edition and include latest addenda, issued at project initiation.

- American National Standards Institute (ANSI)
- American Institute of Steel Construction (AISC)
- American Petroleum Institute (API)
- American Society of Civil Engineers (ASCE)
- American Society of Heating, Refrigerating, Air Conditioning Engineers (ASHRAE)
- American Society of Mechanical Engineers (ASME)
- American Society of Testing and Materials (ASTM)
- American Welding Society (AWS)
- GE Global Asset Protection Services (GE GAP)
- Industrial Cable Engineers Association (ICEA)
- Instrument Society of America (ISA)
- Institute of Electrical and Electronic Engineers (IEEE)
- National Electric Code (NEC)
- National Electrical Manufacturers Association (NEMA)
- National Fire Protection Association (NFPA)
- Occupation Safety and Health Administration (OSHA)

- Tubular Exchanger Manufacturers Association (TEMA)
- Uniform Building Code (UBC)
- Underwriters Laboratories Inc. (UL)
- US Environmental Protection Agency (EPA)
- Texas Commission on Environmental Quality (TCEQ)
- United States Coast Guard (USCG)
- United States Corps of Engineers (USACE)
- The engineering and design shall comply with and conform to the latest edition of all applicable federal, state and local regulations, plus all codes and standards referenced therein, in effect at the time of Fabrication. Engineering and design shall be performed in accordance with Recognized and Generally Accepted Good Engineering Practices (RAGAGEP). All engineering design work performed shall be under the direct supervision of a qualified Professional Engineer.

4.0 General Site Consideration:

The overall site will include access ways and roadways to access all major equipment items. Roadways and access ways will be designed for vehicular traffic as well as some staging areas near the equipment for maintenance related purposes.

4.1 Design Conditions:

4.1.1 Wind speed: 140 mph

4.1.2 Temperature for Plant Design: 20°F to 110°F

4.1.3 Temperature for Plant Operation: 30°F to 105°F

4.1.4 Product Temperature: 105°F Maximum

4.1.5 Pipeline: Pipeline piping to be in accordance with ASME B31.4. Piping from the incoming MOV to the pumps and equipment on site shall be in accordance with ASME B31.4.

5.0 Discipline Specific Design Basis

5.1 Structural Steel:

5.1.1 Structural steel will be evaluated in accordance with ASCE, AISC and UBC standards.

5.1.2 All structural steel modifications will be detailed and design load capacities and applicable information included in the Civil Structural notes and engineered drawings.

5.1.3 Estimate excludes fabrication and installation of all necessary new structural steel in this project.

5.1.4 All exterior structural steel will be hot dipped galvanized.

5.2 Structural Steel:

5.2.1 Structural steel will be evaluated in accordance with ASCE, AISC and UBC standards.

5.2.1 All structural steel modifications will be detailed and design load capacities and applicable information included in the Civil Structural notes and engineered drawings.

5.2.2 Estimate excludes fabrication and installation of all necessary new structural steel in this project.

5.2.3 All exterior structural steel will be hot dipped galvanized.

5.3 Piping/Mechanical:

5.3.1 Estimate includes design, fabrication and installation of all new piping. Contractor is responsible for Quality Control and documentation of compliance to specifications.

5.3.2 Quality Control of the pipe construction:

- All piping to be constructed according to the Pinto Energy Partners Pipe Specifications.
- 10% X-ray and quality control of the pipe welding process as per the codes and piping specification.
- Mill specs and documentation of pipe materials.
- Certified welders used for pipe construction.
- Pressure testing as per ASME code.

5.4 Painting and Coatings:

5.4.1 Structural Steel to be hot Dip Galvanized.

5.4.2 Painting or coating of pipe as per Pinto Energy Partners Specifications. Color Code to be followed.

5.4.3 Contractor will maintain a QC process for coatings and will document it.

5.4.4 All piping and equipment shall be painted as specified in the technical documents, standards, and line lists. The Pinto Energy Partners painting and coating specifications for piping and structural steel must be followed. The color code for paint will be followed. All painting labor and materials shall be provided by the contractor.

5.5 Electrical and Instrumentation:

5.5.1 Installation of electrical and Instrumentation as detailed in P&IDs.

5.5.2 All electrical and instrumentation will be in compliance with Pinto Energy Partners Engineering Practices.

5.5.3 Instrumentation is considered new and will be specified, procured and installed per existing P&ID's.

APPENDIX H

AFFIDAVIT OF PUBLICATION AND CERTIFICATE OF SERVICE

Proof of notice by mailing and publication

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the Application of Pinto Energy Ptrs – Stg 1, LLC for a Permit to Create, Operate, and Maintain a Brine Mining and Underground Hydrocarbon Storage Facility (Form H-4 with Instructions) for the Pinto Energy Storage Lease, Stratton Ridge Field, Brazoria County, Texas were sent to each of the persons named below by depositing same in the United State Mail, postage thereon fully prepaid:

COUNTY CLERK ***VIA REGULAR MAIL***

JOYCE HUDMAN
BRAZORIA COUNTY CLERK
111 E. LOCUST STREET, SUITE 200
ANGLETON, TX. 77515

OPERATORS IN STRATTON RIDGE ***VIA CERTIFIED AND REGULAR MAIL***

THE DOW CHEMICAL COMPANY
2301 BRAZOSPORT BLVD
SALT DOME OOERATIONS BLDG S 201
FREEPORT, TX 77541-3257

INEOS USA
CHOCOLATE BAYOU PLANT
P O BOX 1488
ALVIN, TX 77512-1488

INEOS CHOCOLATE BAYOU P/L, LLC
P O BOX 1488
ALVIN, TX 77512-1488

KINDER MORGAN TEJAS PIPELINE, LLC
1001 LOUISIANA STREET, STE 1000
HOUSTON, TX 77002

FREEPORT LNG DEVELOPMENT, LP
333 CLAY STREET, STE 5050
HOUSTON, TX 77002

SURFACE OWNERS ***VIA CERTIFIED AND REGULAR MAIL***

PINTO ENERGY PTRS - STG, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON, TX 77098

HARVEST FOR THE HUNGRY
2001 HOLCOMBE BLVD #3305
HOUSTON, TX 77030-4232

63 PROPERTIES, LLC
PO BOX 3487
FREEPORT, TX 77542-1687

SHINTECH INC
3 GREENWAY PLZ STE 1150
HOUSTON, TX 77046-0325

BRAZORIA COUNTY MODELERS ASSN C/O ERIK VALDEZ
140 BRAZOSPORT BLVD N
CLUTE, TX 77531-3702

THE DOW CHEMICAL COMPANY
C/O TAX DEPT TXINN APB FLOOR 4A 332 SH 332 E
LAKE JACKSON, TX 77566

MINERAL OWNERS ***VIA CERTIFIED AND REGULAR MAIL***

COCKRELL INVESTMENT PARTNERS
3737 BUFFALO SPEEDWAY, SUITE 1100
HOUSTON, TEXAS 77098

FREEPORT LNG
333 CLAY ST # 5050
HOUSTON, TX 77002

HARVEST FOR THE HUNGRY
C/O DAVE HUANG
2001 HOLCOMBE BLVD #3305
HOUSTON, TX 77030-4232

CHEVRON
C/O CHEVRON SERVICES TAX DEPARTMENT
PO BOX 285
HOUSTON, TX 77001-0285

THE DOW CHEMICAL COMPANY
2301 N BRAZOSPORT BLVD
FREEPORT, TX 77541

BP AMERICA PRODUCTION CO
502 WESTLAKE PARK BLVD
HOUSTON, TX 77079

ELAINE S WHITE TRUST
2110 RIVER OAKS BLVD.
HOUSTON TX 77019

FROST 4 INTERESTS LTD LLP
REVOCABLE TRUST
2110 RIVER OAKS BLVD.
HOUSTON TX 77019

FROST MINERAL TRUST
C/O KANALY TRUST CO
PO BOX 13636
ARLINGTON, TX 76094-0636

FROST PROPERTIES LTD
TRUST OPERATIONS
AMEGY BANK TRUSTEE
P O BOX 27767
HOUSTON, TX 77227-7767

DINO DUE
206 BIRDSALL ST
HOUSTON, TX 77007-8108

FROST FAMILY I LTD
5004 CEDAR ST
BELLAIRE, TX 77401-4009

MAGNOLIA PETROLEUM COMPANY
3811 TURTLE CREEK BLVD, SUITE 1900
DALLAS, TEXAS 75219-3811

THE ALLAR COMPANY
735 ELM ST
GRAHAM, TX 76450

Done this 11th day of August 2022.

Thomas F. Soriero, Jr
Pinto Energy Ptrs – Stg 1, LLC

Pinto Energy Partners

July 25, 2022

Freeport LNG Development, LP
333 Clay Street, Suite 5050
Houston, TX 77002

Re: Pinto Energy Ptrs – STG 1 LLC Application for a Permit to Create, Operate, and Maintain a Brine Mining and Underground Hydrocarbon Storage Facility, Stratton Ridge Salt Dome, Brazoria County, Texas.

Dear Freeport LNG Development, LP:

Enclosed please find a copy of the Form H-4 to be filed by Pinto Energy Ptrs – STG 1 LLC to obtain a permit from the Railroad Commission of Texas to create, operate, and maintain a brine mining and underground hydrocarbon storage facility in the Stratton Ridge Salt Dome in Brazoria County. The brine-mining and hydrocarbon storage caverns will be located approximately 3.5 miles east of Clute, Texas within a depth interval of 2250 to 9000 feet.

You have been identified as an operator of wells within ½ mile of the tract upon which the brine mining and hydrocarbon storage facility is to be located and, therefore, entitled to receive direct notice of the application pursuant to Railroad Commission Statewide Rules 81, 95, and 97.

Requests for more information may be made to:

Injection – Storage Permits and Support
Oil and Gas Division
Railroad Commission of Texas
P.O. Box 12967
Austin, Texas 78711

3737 Buffalo Speedway
Suite 1100
Houston, TX 77098
713.209.7500

Persons who can show that they may be adversely affected by the proposed facilities may request a public hearing on the application and may participate in any such hearing.

You have 15 days from the date the application is filed, or the date of the last newspaper notice publication (whichever is later) to ask for a hearing.

If you have any questions, please do not hesitate to contact me at the number below.

Sincerely yours,

Thomas (Tommy) F Soriero Jr.
Managing Director
Pinto Energy Partners L.P.
713-209-7553

3737 Buffalo Speedway
Suite 1100
Houston, TX 77098
713.209.7500

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Return To:
DIRECTOR, Underground Injection Control
Oil and Gas Division
Railroad Commission of Texas
Capitol Station–P.O. Drawer 12967
Austin, Texas 78711

Form H-4
4/82

APPLICATION TO CREATE, OPERATE AND MAINTAIN
AN UNDERGROUND HYDROCARBON STORAGE FACILITY

1 Operator Name: Pinto Energy Ptrs - STG 1, LLC
2 Operator No: 665753
3 Address (Street, City, State and Zip Code): 3737 Buffalo Speedway, Suite 1100, Houston, Texas 77098
4 RRC Dist: 03
5 Lease Name(s), if applicable: Pinto Energy Ptrs - STG 1, LLC Lease
6a Oil Lease No(s), if assigned: NA
6b Gas ID No(s), if assigned:
7. Field Name: Stratton Ridge
8 RRC Field No.,if assigned: 86526001
9 County: Brazoria
10. General Location
This facility will be 3 miles in a East direction from Clute (nearest post office or town)
11. [X] New Project [ ] Expansion Initial Authority Dated _____ by Special Order No. _____
12. Type of Structure [X] domal salt [ ] bedded salt
13 Depth to Top of Caprock (ft): Varies: -1350 to -3000 MSL
14 Depth to Top of Salt (ft): Varies: -950 to -2600 MSL
15. Current Number of Cavities in Project: None
16 Number of Cavities in this Application: 20

17. Cavity Name and Well No.	18 Location (Sec.,Blk.,Survey) Distance from Survey Lines	19 Size and Capacity When Fully Leached			20 Injection Rate daily (bbls)		21 Injection Pressure daily (psig)	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	avg.	max	avg.	max

SEE ATTACHED TABLE OF WELLS

22 List Underground Hydrocarbon Storage Facilities within One Mile of the Proposed Facility

1) Dow Chemical, The (227525) - Dow Fee (14753), Stevens Tract (11287), Brock (11376) Leases
2) Freeport LNG Development, L.P. (285141)- FLNG Gas Storage (25217) Lease
3) Ineos USA, LLC (424191) - Amoco Chemicals Company (10375) Lease
4) Ineos Chocolate Bayou P/L (424192) - Amoco Chemical Corporation (15713) Lease
5) Kinder Morgan Tejas Pipeline (463338) - Tejas Ship Channel Company (21487) Lease

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature

Thomas F Soriero Jr. — Name of Person (type or print)
Managing Director — Title
Telephone 713-209-7553 (Area Code / Number)
Date July 25, 2022

FOR RRC USE ONLY

APPLICANT MUST COMPLY WITH THE INSTRUCTIONS ON REVERSE SIDE (OVER)

INSTRUCTIONS (H-4)

1. File the original application, including all attachments, with the Director of Underground Injection Control,P.O. Drawer 12967, Capitol Station, Austin, Texas 78711. File one copy of the application and its attachments with the appropriate District Office.

2. Attach a map with surveys marked showing the location and depth of all wells of public record within one-quarter (¼) mile radius of each facility well and areal limits of each storage cavity. For those wells which penetrate the top of the caprock, attach a tabulation of the wells showing the dates the wells were drilled and the present status of the wells. Attach plugging records for abandoned wells. If any nearby facilities include storage cavities that extend within one-quarter (¼) mile of the proposed facility, map and identify those facilities.

3. Describe the geology of the site. Include, for all zones penetrated by the storage well, the geological formation name, lithologic description, thickness, and any faults or fractures. Provide geologic cross sections drawn perpendicular to each other and extending a half mile beyond the limits of the storage cavities. Attach a copy of the electrical logs and other data used in drawing cross sections.

4. Outline step by step well completion procedures, including logging and casing testing. Describe each storage cavity well completion by diagrammatic sketch. Attach a tabulation of the casing and cementing program for each cavity well, including information on the type, size, weight, grade, and setting depth of all casing strings, number and location of centralizers, cementing technique, type and volume of cement, cement additives, and gel.

5. Describe the cavity development process, including the composition of displacement fluid, injection rates during cavity creation, cavity-boundary monitoring, method of circulation, and use of blanket liquids.

6. Attach a list of the type and composition of the liquids to be stored in each cavity.

7. Describe abandonment procedures and provide diagrammatic sketches for plugging of facility wells. State composition of the fluid to be used to fill cavities.

8. Attach a letter from the Texas Department of Water Resources, P.O. Box 13087, Capitol Station, Austin Texas 78711, stating the depth to which usable-quality ground water occurs in the area of the proposed facility.

9. (a) Attach a plat of leases or owned properties showing the proposed areal limits of the proposed storage cavity facility and the ownership of property or leases adjacent to the proposed facility.

   (b)(1) Send copies of the application, including both sides of the form, to the surface owners located over the facility and to adjacent offset operators or leaseholders. Attach a signed statement indicating the date the copies of the application were mailed or delivered and the names and addresses of the persons to whom copies were sent.

   (2) Attach an affidavit of publication signed by the publisher that notice of the application has been published for three consecutive days in a newspaper of general circulation for the county where the facility will be located. Notice instructions and forms may be obtained from the Commission's Austin Office or the District Offices.

   (c) A public hearing will be held for all new storage facilities after the Commission provides notice of the hearing to all persons listed pursuant to Section 9(b) (1) above. No public hearing will be held on applications for expansions of existing facilities unless a protest is received requesting a public hearing. Any such request for a public hearing shall be in writing and contain: (1) the name, mailing address, and phone number of the person making the request; and (2) a brief description of how the protestant would be adversly affected by the granting of the application. If the Commission determines that a valid protest has been received, or that a public hearing would be in the public interest, a hearing will be held after the issuance of proper and timely notice of the hearing by the Commission. If no protest is received within fifteen (15) days of the date of publication or receipt in Austin of the application, the application may be processed administratively.

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC
FORM H-4: TABLE OF WELLS

17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls)		daily (psig)	
					avg.	max.	avg.	max.
1 / 1	5,550' FEL & 5,238' FSL	3,750	9,000	12,000	52,000	86,000	2,000	2,798
2 / 2	4,506' FEL & 5,180' FSL	3,750	9,000	12,000	52,000	86,000	2,000	2,798
3 / 3	3,681' FEL & 4,581' FSL	3,750	9,000	12,000	52,000	86,000	2,000	2,798
10 / 10A	8,982' FEL & 4,279' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
10 / 10B	8,951' FEL & 4,269' FSL	2,250	9,000	Same as 10A	52,000	86,000	1,100	1,800
10 / 10C	8,940' FEL & 4,236' FSL	2,250	9,000	Same as 10A	52,000	86,000	1,100	1,800
10 / 10D	8,972' FEL & 4,247' FSL	2,250	9,000	Same as 10A	52,000	86,000	1,100	1,800
11 / 11A	8,017' FEL & 4,285' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
11 / 11B	8,002' FEL & 4,255' FSL	2,250	9,000	Same as 11A	52,000	86,000	1,100	1,800
11 / 11C	8,017' FEL & 4,225' FSL	2,250	9,000	Same as 11A	52,000	86,000	1,100	1,800
11 / 11D	8,032' FEL & 4,255' FSL	2,250	9,000	Same as 11A	52,000	86,000	1,100	1,800
13 / 13A	8,976' FEL & 3,276' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
13 / 13B	8,946' FEL & 3,292' FSL	2,250	9,000	Same as 13A	52,000	86,000	1,100	1,800
13 / 13C	8,916' FEL & 3,277' FSL	2,250	9,000	Same as 13A	52,000	86,000	1,100	1,800
13 / 13D	8,946' FEL & 3,262' FSL	2,250	9,000	Same as 13A	52,000	86,000	1,100	1,800

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC
FORM H-4: TABLE OF WELLS

17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls)		daily (psig)	
					avg.	max.	avg.	max.
14 / 14A	8,010' FEL & 3,283' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
14 / 14B	7,995' FEL & 3,253' FSL	2,250	9,000	Same as 14A	52,000	86,000	1,100	1,800
14 / 14C	8,010' FEL & 3,223' FSL	2,250	9,000	Same as 14A	52,000	86,000	1,100	1,800
14 / 14D	8,025' FEL & 3,253' FSL	2,250	9,000	Same as 14A	52,000	86,000	1,100	1,800
15 / 15A	8,969' FEL & 2,274' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
15 / 15B	8,958' FEL & 2,317' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
15 / 15C	8,927' FEL & 2,317' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
15 / 15D	8,937' FEL & 2,285' FSL	2,250	9,000	Same as 15A	52,000	86,000	1,100	1,800
16 / 16A	8,000' FEL & 2,281' FSL	2,250	9,000	24,000	52,000	86,000	1,100	1,800
16 / 16B	8,019' FEL & 2,311' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
16 / 16C	8,004' FEL & 2,341' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
16 / 16D	7,989' FEL & 2,311' FSL	2,250	9,000	Same as 16A	52,000	86,000	1,100	1,800
20	7,246' FEL & 5,526' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
21	7,245' FEL & 5,376' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
22	7,244' FEL & 5,226' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC
FORM H-4: TABLE OF WELLS

17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls)		daily (psig)	
					avg.	max.	avg.	max.
23	7,243' FEL & 5,076' FSL	2,250	4,400	100	12,000	26,000	1,100	1,800
24	7,242' FEL & 4,926' FSL	2,250	4,000	100	12,000	26,000	1,100	1,800
25	7,045' FEL & 5,477' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
26	7,044' FEL & 5,278' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
27	7,043' FEL & 5,078' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
28	7,041' FEL & 4,877' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
29	6,843' FEL & 5,179' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800
30	6,842' FEL & 4,979' FSL	2,250	4,000	200	12,000	26,000	1,100	1,800

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Freeport LNG Development, LP
333 Clay Street, Suite 5050
Houston, TX 77002

9590 9402 5367 9189 1953 04

2. Article Number *(Transfer from service label)*
7020 1290 0000 6698 8657

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Elvis Bent
C. Date of Delivery 7/28/2022

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
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- ☐ Collect on Delivery
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- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
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- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

The Facts
Covering Brazoria County - Where Texas Began

Affidavit of Publication

P. O. BOX 549
CLUTE TX 77531
979-265-7411

STATE OF TEXAS
COUNTY OF BRAZORIA

Cindy Cornette, being duly sworn, says:

That she is Classifieds Leader of the **The Facts**, a daily newspaper of general circulation, printed and published in **Brazoria County, Texas**; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

07/23-24/2022, 07/30-31/2022, 08/06-07/2022

That said newspaper was regularly issued and circulated on those dates.

Advertising Director

Subscribed to and sworn to me this **8th day of August, 2022**.

Ashley Gonzalez, Brazoria County, Texas

NOTARY PUBLIC STATE OF TEXAS
ASHLEY GONZALEZ
MY COMMISSION EXPIRES
January 14, 2026
NOTARY ID: 13348480-7

Pinto Energy Partners
Thomas Soriero
3737 Buffalo Speedway, Ste 1100
Houston, TX 77098

Acct #70881 Ad #1019982

NOTICE OF AN APPLICATION FOR A PERMIT TO CREATE, OPERATE, AND MAINTAIN A BRINE MINING INJECTION WELL AND UNDERGROUND HYDROCARBON STORAGE FACILITY IN A SALT FORMATION.

Pinto Energy Ptrs – STG 1 LLC, 3737 Buffalo Speedway, Suite 1100, Houston, Texas 77098 is applying to the Railroad Commission of Texas for a permit to create, operate, and maintain a brine mining and underground hydrocarbon storage facility.

The applicant proposes to produce saturated brine by solution mining and to store liquid, or liquified hydrocarbons, and natural gas in the Stratton Ridge Salt Dome on its Pinto Energy Ptrs – STG 1 LLC Lease. There will be a total of up to 38 separate wells accessing up to 20 different solution-mined caverns on Pinto Energy Partners SR LLC's 774+ acre property. The proposed facility will be located 3.5 miles east of Clute, Texas in Brazoria County.

The proposed storage caverns will the located in the subsurface depths from 2,250 feet to 9000 feet.

LEGAL AUTHORITY: Title 3 and 11 of the Natural Resources Code; Texas Civil Statutes, Article 6053-3; and the Statewide Rules of the Oil and Gas Division of the Railroad Commission of Texas.

Requests for more information about the application may be made to: Injection-Storage Section, Oil and Gas Division, Railroad Commission of Texas, P.O. Box 12967, Austin, Texas, 78711. Telephone 512-463-6792. Persons who can show they may be adversely affected by the proposed underground hydrocarbon storage facility may request a public hearing on the application. Such request must be received in writing within fifteen days of the last date of publication of this notice. Requests for hearing should be sent to the Environmental Services Section at the address above.

The Facts
Covering Brazoria County - Where Texas Began

P. O. BOX 549
Clute TX 77531
P: 979-265-7401
F: 979-265-0870

Receipt
Date: 07/21/22
User: FDAMIAN

CUSTOMER INFORMATION:

Account:	**70881**
Name:	**Thomas Soriero**
Company:	**Pinto Energy Partners**
Address:	**3737 Buffalo Speedway, Ste 1100** **Houston, TX 77098**
Telephone:	**(713) 209-7553**

AD INFORMATION:

Publish Dates:	**07/24/22, 07/31/22, 08/07/22**
Product/Package:	**Legal Lines** **BR Legal Lines w/Online**
Class:	**1055**
Ad ID:	**1019982**
Ad Taken By:	**FDAMIAN**
Sales Person:	**Obits/Legals**
Column:	**2**
Depth:	**7.264**
Lines:	**50**
Words:	**277**
Color:	
Description:	**Notice of Application-Pinto Energy Ptrs**

CHARGES / PAYMENT DETAIL:

Ad Price:	**$705.00**
Payment Date:	**07/21/22 CC**
Payment Type:	**MC**
CC Last 4 #:	**4244**
Amount Paid:	**$705.00**
Approval Code:	**06712P**
Amount Due:	**$0.00**

We Appreciate Your Business!
Thank You!

NOTICE OF AN APPLICATION FOR A PERMIT TO CREATE, OPERATE, AND MAINTAIN A BRINE MINING INJECTION WELL AND UNDERGROUND HYDROCARBON STORAGE FACILITY IN A SALT FORMATION.

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Receipt

RE/MAX 1st Team
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Angleton: 2BR, 1BA, Home s/Stove, Fridge, & CHA. $1350/Mo+Dep. GFA 979-233-7828

Clute: 1BR, 1BA, Home w/ Appli & 3 WU. $1200/Mo+Dep. GFA 979-233-7828.

Clute: 2BR, 1BA, Duplex w/ Stove, Fridge & WU. $850/Mo+Dep. GFA 979-233-7828.

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PUBLISHER'S NOTICE

"All real estate advertising in this newspaper is subject to the Fair Housing Act which makes it illegal to advertise "any preference limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin, or an intention, to make any such preference limitation or discrimination." Familial status includes children under the age of 18 living with parents or legal custodians, pregnant women and people securing custody of children under 18. This newspaper will not knowingly accept any advertising for real estate which is in violation of the law. Our readers are hereby informed that all dwellings advertised in this newspaper are available on an equal opportunity basis. To complain of discrimination call HUD toll-free at 1-800-669-9777. The toll-free telephone number for the hearing impaired is 1-800-927-9275.

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HOMES FOR SALE

1). BRAZORIA. Great for DYI & investors. 2,277 sf, 3BR, 2BA home on 1+ acre, corner lot near the San Bernard River. Open floor plan. Renovations started! Home also has a pond with deck that needs some TLC. Large metal shop. $160's

2). OLD BRAZOS RIVER. 3BR, 4BA waterfront home with many custom features. Has an indoor & outdoor kitchen w/granite counters. In and out door FP. Beautiful, quality finishes. Cargo lift, parking with garage and carport. Fishing pier and boatslip. Access to the Gulf by boat. Call for appt.

3). OYSTER CREEK. 3BR, 2BA double wide with open living concept. Has S/S appliances, adorable coffee bar, new vinyl flooring, built in desk & china cabinet/buffet. 2018 updated HVAC and roof.

4). FREEPORT. Wonderful 3BR, 2BA, 2 car oversized garage home w/relaxing breezeway and patio. Home has many interior & exterior updates call for details. $220's

5). ANGLETON. Complete remodel-New roof, electrical, plumbing, wtr-htr, flooring and appliances in this 3BR, 1BA home. Call today.

LOTS/ACREAGE/COMMERCIAL

6). PRIME WATERFRONT FOR DEVELOPERS TO BUILD ON. Approx. 800' fronts "Old Brazos River" with access to Port Freeport and the Gulf of Mexico. This 3.53 Acre property has the protection of the guillotine.

7). COMMERCIAL BUILDING. 1,976 SF for office or retail space. Previously a church. Being Sold "AS IS". Near Hwy 288 Freeport. $200's

8). PRIME LOCATION REDUCED. Near Old Brazos River. Commercial Real Estate, furniture, and fixtures. Several HVAC systems. Plenty of concrete parking on 2 streets.

CALL FOR INFORMATION ABOUT OUR COMMERCIAL PROPERTIES FOR LEASE.

AGENTS

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MARISOL DIAZ....979-709-6163
NORMA HERNANDEZ....979-285-5668
GREG FLANIKEN....979-299-5019
DEBBIE ISACKS....979-239-7251
JESUS CONEJO....979-557-9231
EVA LOPEZ....979-202-9317
HORACE LEMONS....979-709-6960

979-233-7828
Fax: 979-239-1816
1101 N. Brazosport Blvd.,Freeport

Public Notice

Public Notice

Gamma Construction invites you to propose on the Alvin Independent School District Alvin Elementary Replacement. The proposals are due on Wednesday, August 17, 2022 by 2:00 p.m. Please have your proposal emailed (phaynes@gammaconst.com) or called in (713-963-0086) by 2:00 p.m. to Gamma Construction attention Pam Haynes. There will be a pre-proposal meeting Wednesday, August 3, 2022 at 10:00 a.m at Alvin Independent School District Maintenance Operations Facility, 2200 Stapp Maxwell, Building A, Alvin, Texas 77511. This is not mandatory but highly encouraged. All plans will be available July 25 at Houston AGC, ABC, Dodge, ISQFT and Gamma's FTP site. Alvin ISD and Gamma Construction reserves the right to waive any informality and to reject any or all Proposals.

CITATION BY PUBLICATION

THE STATE OF TEXAS

THE HEIRS AND UNKNOWN HEIRS OF **JOSEPH E. ROBINSON, III** PROBATE NO **PR40812**, COUNTY COURT, BRAZORIA COUNTY, TEXAS

APPLICATION TO DETERMINATION HEIRSHIP

Said application will be heard and acted on by the court at any call of the docket on or after 10:00 o'clock A.M. on the first Monday next after the expiration of ten days from date of publication of this citation, in County Court at Law #4 and Probate Court in the County Courthouse in Angleton, Texas.

All persons interested in said estate are hereby cited to appear before Honorable Court at said above mentioned time and place by filing a written answer contesting such application should they desire to do so.

The officer executing this writ shall promptly serve the same according to requirements of the law, and the mandates hereof, and make due return as the law directs.

GIVEN UNDER MY HAND AND THE SEAL OF SAID COURT at office in Angleton, Texas this the 4th day of May, 2022.

JOYCE HUDMAN, CLERK COUNTY COURT BRAZORIA COUNTY, TEXAS

By: /s/ K BENNETT DEPUTY
K BENNETT

ATTORNEY'S NAME, ADDRESS AND PHONE NUMBER
VANESSA R. WINTON
ATTORNEY AT LAW
4200 MONTROSE BOULEVARD STE 540
HOUSTON TX 77006
T: 713-999-3311
Email: vanessa@vwintonlaw.com

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The Facts advertising policies are intended to create reader confidence in ethical advertising. We reserve the right to edit, alter or decline any advertisement. Position of ads can not be guaranteed. The Facts assumes no financial responsibility for typographical errors or omission of copy. Liability for errors or omissions shall not exceed the cost of that attributable portion of space. Advertisers, advertising agencies or agents will assume all liability for advertisements published and agree to assume any and all responsibility for claims occurring therefrom against. Credit is allowed for the first insertion only, if your ad contains an error, please notify The Facts Classified Department before 10:00 a.m on the first day (or business day if ad starts on weekend) of insertion. Office Hours: Mon.-Fri., 8-5. 979-265-7401

Public Notice

Public Notice

REQUEST FOR PROPOSALS

Notice is hereby given that the Brazosport Independent School District will receive sealed proposals until 2:30 p.m., Monday, August 8, 2022, for fencing supplies and installation. For additional information, contact Ken Schulte, Director of Maintenance at kenneth.schulte@brazosportisd.net or call (979) 730-7120 ext. 28232. Proposal forms are available from the office of the Chief Financial Officer, 301 W. Brazoswood Drive, Clute, TX, 77531.

Rebecca Kelley
Chief Financial Officer
Brazosport Independent School District

The following will be Non-Exclusive bids.

Alvin ISD is now accepting sealed proposals directed to Jennifer Ortiz, Contract Specialist Purchasing at 2200 Stapp Maxwell, Alvin, Texas 77511, due on the following date and time":

2209CCP (CONTRACTED SERVICES) Proposal– closing, August 18, 2022 at 1:30 PM

2209CPP (CONTRACTED POLICE PERSONNEL $35.00per hour) Proposal– closing, August 18, 2022 at 2:00 PM

Alvin ISD is now accepting sealed proposals directed to Adeanna Marquez, Purchasing Agent, Purchasing at 2200 Stapp Maxwell, Alvin, Texas 77511, due on the following date and time":

2209IMPREM (IMPRINTED, PRINTED & EMBROIDERED ITEMS, ENGRAVING & AWARDS) - CAT Proposal– closing, August 15, 2022 at 1:30 PM

2209BUS (CHARTER BUS SERVICE & TRAVEL AGENT TOURS, EVENTS & ASSISTANCE) Proposal– closing, August 16, 2022 at 1:30 PM

More information or to obtain a proposal packet please contact Jennifer Ortiz by phone at 281-824-0567.

Proposals will be extended via our website on July 21, 2022, along with a listing of the commodities Alvin ISD / Departments/ Purchasing/ Legal Ads – Current Proposals

Alvin ISD reserves the right to reject any/or all bids.

NOTICE OF AN APPLICATION FOR A PERMIT TO CREATE, OPERATE, AND MAINTAIN A BRINE MINING INJECTION WELL AND UNDERGROUND HYDROCARBON STORAGE FACILITY IN A SALT FORMATION.

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APPENDIX I

SEISMIC REVIEW
(50 KM)

U.S. Geological Survey - Earthquake Hazards Program

Search Earthquake Catalog

Search results are limited to 20,000 events. To get URL for a search, click the search button, then copy the URL from the browser address bar.

- Help
- ANSS Comprehensive Earthquake Catalog (ComCat) Documentation
- Developer's Corner - Library of functions and wrapper scripts for accessing and using tools for the NEIC's ComCat data
- Significant Earthquakes Archive

Basic Options

Magnitude

- ○ 2.5+
- ○ 4.5+
- ◉ Custom

Minimum: 0

Maximum: 10

Date & Time

- ○ Past 7 Days
- ○ Past 30 Days
- ◉ Custom

Start (UTC): 1900-01-01 00:00:00

End (UTC): 2022-08-08 23:59:59

Geographic Region

- ○ World
- ○ Conterminous U.S.[1]
- ◉ Custom

Worldwide

Draw Rectangle on Map

- Advanced Options

Geographic Region

Decimal degree coordinates. North must be greater than South. East must be greater than West.

Depth (km)

Minimum

Maximum

North

West East

South

Circle

Center Latitude: 29.031394

Center Longitude: -95.344203

Outer Radius (km): 50

Azimuthal Gap

Minimum

Maximum

Review Status

- (•) Any
- ( ) Automatic
- ( ) Reviewed

+ **Event Type**

+ **Impact** (PAGER, ShakeMap, DYFI)

+ **Catalog**

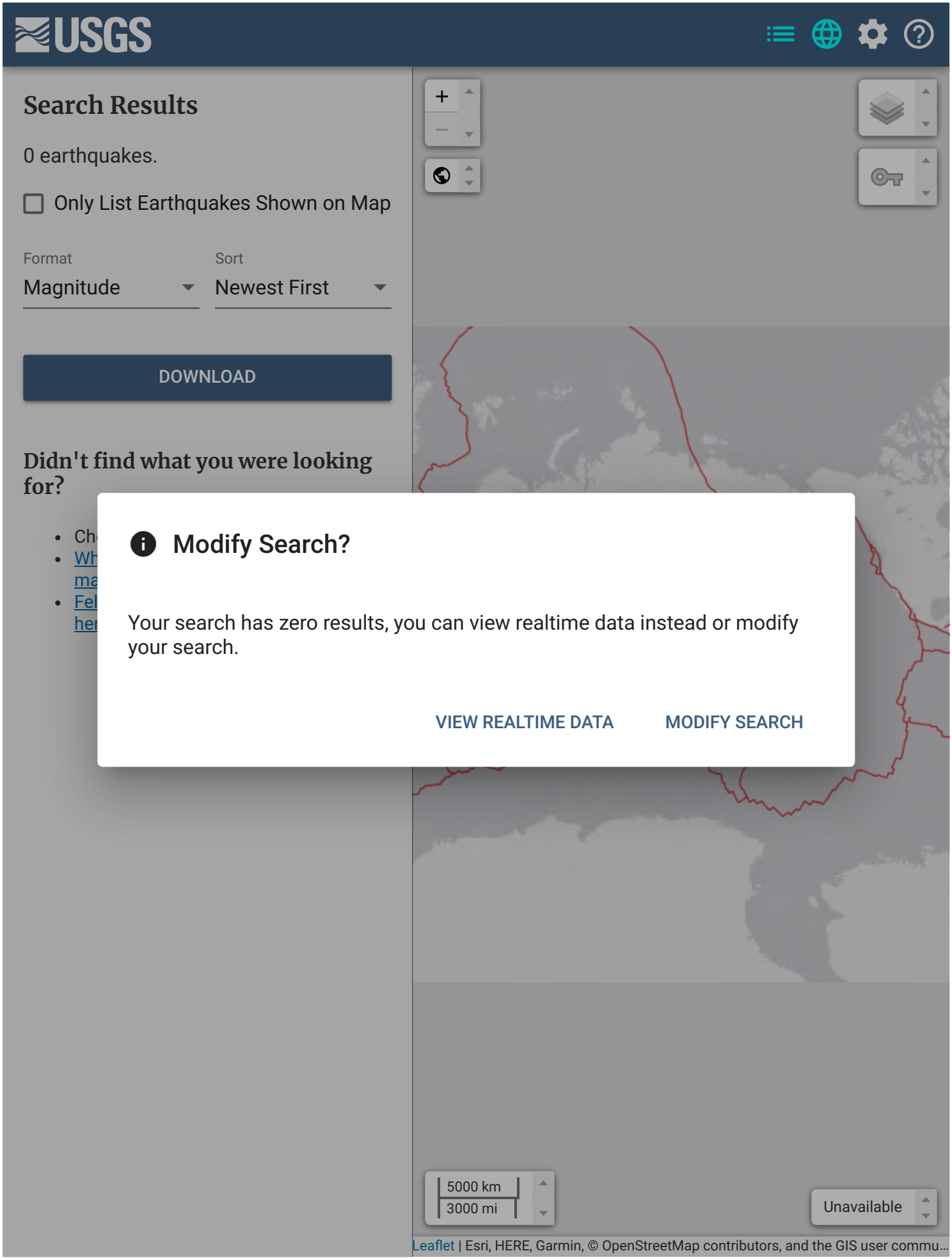
+ **Contributor**

+ **Product Type**

+ Output Options

Search

[1]Conterminous U.S. refers to a rectangular region including the lower 48 states and surrounding areas which are outside the Conterminous U.S.


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ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

October 10, 2022

PINTO ENERGY PTRS - STG 1, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON TX 77098

RE: Application for Permit to Create, Operate, and Maintain an Underground Storage Facility (Form H-4)
STRATTON RIDGE Field, PINTO ENERGY PTRS - STG 1, LLC LEASE (00000) Lease, Well Nos. 1 ; 2 ; 3 ; 10A ; 10B ; 10C ; 10D ; 11A ; 11B ; 11C ; 11D ; 13A ; 13B ; 13C ; 13D ; 14A ; 14B ; 14C ; 14D ; 15A ; 15B ; 15C ; 15D ; 16A ; 16B ; 16C ; 16D ; 20 ; 21 ; 22 ; 23 ; 24 ; 25 ; 26 ; 27 ; 28 ; 29 ; 30 , BRAZORIA County, Texas, District 03
Application Tracking No. **55491**

Our initial administrative and technical reviews indicate the following deficiencies that will need to be corrected to complete your application.

Additionally, we have received protest to the above-referenced application. Copies of the protest correspondence can be viewed online via the RRC Electronic Document Management System (EDMS) at http://webapps.rrc.texas.gov/eds/eds_searchUic.xhtml. A hearing may be scheduled only if the application is administratively complete. When this requested information is received, a public hearing may then be scheduled upon your written request.

1. Provide a sample calculation to demonstrate whether the proposed maximum **surface** injection pressure under item 21 of the Form H-4 is within the limitation of Statewide Rule 97(k)(1) for the proposed gas storage wells 1, 2, and 3. Provide a revised form with reduced values if necessary.

2. Provide a sample calculation to demonstrate whether the proposed maximum **surface** injection pressure under item 21 of the Form H-4 is within the limitation of Statewide Rule 95(k)(1) for the proposed liquid storage wells. Provide a revised form with reduced values if necessary.

3. Provide the P&A plan **wellbore diagrams** as directed by Form H-4 instruction item no. 7.

UIC permitting procedures can also be found at https://www.rrc.texas.gov/oil-and-gas/applications-and-permits/injection-storage-permits/

4. Provide NAD83 coordinates for each proposed well location. Note that further review of the area of review may follow from receipt of this information.

5. Provide separate Forms H-4 for the group of SWR 95 wells and the group of SWR 97 wells.

6. Section II (A) of the application states, “PEP is developing this brine mining, hydrocarbon liquids, and natural gas storage facility complex to provide saturated brine for nearby chemical plant feedstock and to provide storage services for hydrocarbon liquids, natural gas, or other gaseous substances.” However, the subject submission did not include a Form H-2 application pursuant to Statewide Rule 81. Revise the accompanying attachments to the subject Form H-4 application to remove reference to brine mining facility and brine mining injection, or submit the appropriate Form H-2 application pursuant to Statewide Rule 81. A Form H-2 application is subject to the Form H-2 application fee.

Please respond to this letter in its entirety, if possible. The Texas Administrative Code, Title 16, Part 1, Chapter 1, Rule 201 states that an applicant may make no more than two supplemental filings to complete an application. If, after two supplemental submissions, the application is still incomplete, the division or section shall administratively deny the application.

Please submit the requested information to the Injection-Storage Permits Unit (UIC) of the Railroad Commission of Texas at **UIC_Permits@rrc.texas.gov** or PO Box 12967, Austin TX 78711. Direct questions to UIC by email at the given email address, or by phone to 512-463-6792. The subject line of the email must include tracking no. **55491.**

CC: Tracking No. 55491 Service List (attached)

Tracking No. 55491 Service List:

APPLICANT NAME AND ADDRESS:

SCOTT DOUGLASS & MCCONNICO LLP
OLGA KOBZAR
JOHN HICKS
303 COLORADO ST STE 2400
AUSTIN TX 78701

PINTO ENERGY PTRS - STG 1, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON TX 77098

PROTESTANT(S) NAME AND ADDRESS:

CARLOS MORENO
SENIOR COUNSEL
DOW
332 SH 332#, 4A016
LAKE JACKSON TX 77566
(PROTEST RECEIVED 9/7/2022)

DOW CHEMICAL COMPANY, THE
2301 BRAZOSPORT BLVD
SALT DOME OPERATIONS BLDG S 201
FREEPORT TX 77541-3257
(PROTEST RECEIVED 9/7/2022)

WAYNE CHRISTIAN, CHAIRMAN
CHRISTI CRADDICK, COMMISSIONER
JIM WRIGHT, COMMISSIONER

DANNY SORRELLS
ASSISTANT EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
PAUL DUBOIS, P.E.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

November 17, 2022

SECOND REQUEST
Application will be returned if requested information is not received within 30 days

PINTO ENERGY PTRS - STG 1, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON TX 77098

RE: Application for Permit to Create, Operate, and Maintain an Underground Storage Facility (Form H-4)
STRATTON RIDGE Field, PINTO ENERGY PTRS - STG 1, LLC LEASE (00000) Lease, Well Nos. 1 ; 2 ; 3 ; 10A ; 10B ; 10C ; 10D ; 11A ; 11B ; 11C ; 11D ; 13A ; 13B ; 13C ; 13D ; 14A ; 14B ; 14C ; 14D ; 15A ; 15B ; 15C ; 15D ; 16A ; 16B ; 16C ; 16D ; 20 ; 21 ; 22 ; 23 ; 24 ; 25 ; 26 ; 27 ; 28 ; 29 ; 30 , BRAZORIA County, Texas, District 03
Application Tracking No. **55491**

Our initial administrative and technical reviews indicate the following deficiencies that will need to be corrected to complete your application.

1. Provide a sample calculation to demonstrate whether the proposed maximum **surface** injection pressure under item 21 of the Form H-4 is within the limitation of Statewide Rule 97(k)(1) for the proposed gas storage wells 1, 2, and 3. Provide a revised form with reduced values if necessary.

2. Provide a sample calculation to demonstrate whether the proposed maximum **surface** injection pressure under item 21 of the Form H-4 is within the limitation of Statewide Rule 95(k)(1) for the proposed liquid storage wells. Provide a revised form with reduced values if necessary.

3. Provide the P&A plan **wellbore diagrams** as directed by Form H-4 instruction item no. 7.

4. Provide NAD83 coordinates for each proposed well location. Note that further review of the area of review may follow from receipt of this information.

5. Provide separate Forms H-4 for the group of SWR 95 wells and the group of SWR 97 wells.

UIC permitting procedures can also be found at https://www.rrc.texas.gov/oil-and-gas/applications-and-permits/injection-storage-permits/

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Please respond to this letter in its entirety, if possible. The Texas Administrative Code, Title 16, Part 1, Chapter 1, Rule 201 states that an applicant may make no more than two supplemental filings to complete an application. If, after two supplemental submissions, the application is still incomplete, the division or section shall administratively deny the application.

Please submit the requested information to the Injection-Storage Permits Unit (UIC) of the Railroad Commission of Texas at **UIC_Permits@rrc.texas.gov** or PO Box 12967, Austin TX 78711. Direct questions to UIC by email at the given email address, or by phone to 512-463-6792. The subject line of the email must include tracking no. **55491.**

From:	John Hicks
To:	Sean Avitt
Cc:	Scott Rosenquist; Olga Kobzar; Ashlee Kenney; Jason Lockie; Ricardo Rosso; Luis Garcia
Subject:	RE: TN 55491 -- Pinto Energy Partners draft rad letter response
Date:	Saturday, December 31, 2022 7:02:03 PM
Attachments:	image002.png TN 55491 - Pinto Energy 12.31.22 Response to UIC RAD Ltr with Enclosures 1-4.pdf

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Sean,

Please see attached letter with Pinto Energy Partners' proposed responses (including the NAD83 coordinates in lat/long decimal degree format).

As discussed at our October meeting on this application, we would appreciate you and your team's feedback on these items. Just let me know if you'd like any of the enclosures in native format rather than PDF.

Thanks and Happy New Year!

John

SCOTT DOUGLASS McCONNICO
John K. Hicks | Scott, Douglass & McConnico, L.L.P. | jhicks@scottdoug.com
Board Certified in Oil, Gas & Mineral Law (Texas Board of Legal Specialization)
303 Colorado St., Suite 2400 | Austin, Texas 78701 | 512.495.6310

From: Sean Avitt <Sean.Avitt@rrc.texas.gov>
Sent: Monday, December 19, 2022 6:36 PM
To: John Hicks <jhicks@scottdoug.com>
Cc: Scott Rosenquist <Scott.Rosenquist@rrc.texas.gov>; Olga Kobzar <okobzar@scottdoug.com>; Ashlee Kenney <Ashlee.Kenney@rrc.texas.gov>; Jason Lockie <jason.lockie@rrc.texas.gov>; Ricardo Rosso <Ricardo.Rosso@rrc.texas.gov>; Luis Garcia <lgarcia@scottdoug.com>
Subject: RE: TN 55491 -- Pinto Energy Partners draft rad letter response

EXTERNAL

Lat/long decimal degree format is preferred! Thanks!

Sean

On Dec 19, 2022 18:20, John Hicks <jhicks@scottdoug.com> wrote:

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Sean and Scott,

For the requested NAD83 coordinates, we received the attached file from PEP's surveyor. I'm not at all savvy on these coordinates, but I noticed it provides northing and easting coordinates rather than latitude and longitude coordinates.

Do the attached northing/easting coordinates work for you, or do you need them converted to latitude and longitude?

Thanks,
John

SCOTT DOUGLASS McCONNICO
John K. Hicks | Scott, Douglass & McConnico, L.L.P. | jhicks@scottdoug.com
Board Certified in Oil, Gas & Mineral Law (Texas Board of Legal Specialization)
303 Colorado St., Suite 2400 | Austin, Texas 78701 | 512.495.6310

From: Sean Avitt <Sean.Avitt@rrc.texas.gov>
Sent: Monday, December 19, 2022 4:58 PM
To: John Hicks <jhicks@scottdoug.com>; Scott Rosenquist <Scott.Rosenquist@rrc.texas.gov>
Cc: Olga Kobzar <okobzar@scottdoug.com>; Ashlee Kenney <Ashlee.Kenney@rrc.texas.gov>; Jason Lockie <jason.lockie@rrc.texas.gov>; Ricardo Rosso <Ricardo.Rosso@rrc.texas.gov>
Subject: RE: TN 55491 -- Pinto Energy Partners draft rad letter response

EXTERNAL

John, I've asked staff to hold the return. Please keep us updated. Thanks!

Sean Avitt

From: John Hicks <jhicks@scottdoug.com>
Sent: Monday, December 19, 2022 4:56 PM
To: Sean Avitt <Sean.Avitt@rrc.texas.gov>; Scott Rosenquist <Scott.Rosenquist@rrc.texas.gov>
Cc: Olga Kobzar <okobzar@scottdoug.com>
Subject: TN 55491 -- Pinto Energy Partners draft rad letter response

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Sean and Scott,

Pinto Energy Partners requests a 10-day extension for our RAD letter response in TB 55491. We are finalizing a draft response to the RAD letter in TN 55491, but are not quite ready to send.

Thanks,
John

John K. Hicks | Scott, Douglass & McConnico, L.L.P. | jhicks@scottdoug.com
303 Colorado St., Suite 2400 | Austin, Texas 78701 | 512.495.6310



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SCOTT
DOUGLASS
McCONNICO

John Hicks
Direct Dial: 512.495.6310
jhicks@scottdoug.com

December 31, 2022

VIA E-MAIL: UIC_Permits@rrc.texas.gov
Attn: Sean Avitt, Manager, Injection-Storage Permits Unit
Railroad Commission of Texas
1701 N. Congress Avenue, 10th Floor
Austin, TX 78711

Re: **Proposed Responses to Request for Additional Data**
Pinto Energy Ptrs - STG 1, LLC's Application for a Permit to Create, Operate, and Maintain an Underground Storage Facility (Form H-4); Stratton Ridge Field, Pinto Energy Ptrs – STG 1, LLC Lease (00000) Lease, Well Nos. 1, 2, 3, 10A, 10B, 10C, 10D, 11A, 11B, 11C, 11D, 13A, 13B, 13C, 13D, 14A, 14B, 14C, 14D, 15A, 15B, 15C, 15D, 16A, 16B, 16C, 16D, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30, Brazoria County, Texas, District 03; Application Tracking No. **55491**

Dear Sean:

Pinto Energy Ptrs STG 1, LLC ("PEP") submits the following proposed responses to Technical Permitting's letters dated October 10, 2022 and November 17, 2022 and, as discussed during our meeting on October 14, 2022, PEP requests that Technical Permitting staff review the proposed responses and let us know if they meet staff's expectations. If they do not, please provide us with additional guidance so that PEP can fully address your questions or concerns.

For ease of reference, we include each request and the planned response below and attached.

1. **Provide a sample calculation to demonstrate whether the proposed maximum surface injection pressure under item 21 of the Form H-4 is within the limitation of Statewide Rule 97(k)(1) for the proposed gas storage wells 1, 2, and 3. Provide a revised form with reduced values if necessary.**

   Answer:
   Please see attached revised Table of Wells (Fields 17-21 for the Form H-4) and the sample calculations based on current assumptions.

The revised proposed maximum surface injection pressure is 2,975 psig for the proposed gas storage wells 1-3. The sample calculations show that the operating pressure at the casing shoe will not exceed 0.85 psi/ft—which is the limitation in Rule 97(k)—at the maximum surface injection pressure. Specifically, the sample calculations show that a surface injection pressure of 2,975 psig would result in a casing shoe pressure gradient of 0.847 psi/ft for injection into the annulus, and that a surface injection pressure of 2998.5 psig would result in a casing shoe pressure gradient of 0.847 psi/ft for injection into the hanging string.

2. Provide a sample calculation to demonstrate whether the proposed maximum surface injection pressure under item 21 of the Form H-4 is within the limitation of Statewide Rule 95(k)(1) for the proposed liquid storage wells. Provide a revised form with reduced values if necessary.

Answer:
Please see attached revised Table of Wells (Fields 17-21 for the Form H-4) and the attached sample calculations based on current assumptions.

The revised proposed maximum surface injection pressure for liquid storage wells 10, 11, 13-16 is 997 psig, and the revised proposed maximum surface injection pressure for liquid storage wells 20-30 is 1,550 psig. The sample calculations show that, for each size of liquid storage well, the operating pressure at the casing shoe for each type of well will not exceed 1,800 psig—which is the limitation in Rule 95(k) of 0.80 psi/ft at the casing show depth of 2,250 feet—at the proposed maximum surface injection pressures.

3. Provide the P&A plan wellbore diagrams as directed by Form H-4 instruction item no. 7.

Answer:
Please see attached proposed P&A wellbore diagrams. PEP further notes that the actual method and manner of plugging will represent the evolving standards of the industry at the time and will be subject to RRC approval.

4. Provide NAD83 coordinates for each proposed well location. Note that further review of the area of review may follow from receipt of this information.

Answer:
Please see attached list of NAD83 coordinates for each proposed well location.

5. Provide separate Forms H-4 for the group of SWR 95 wells and the group of SWR 97 wells.

Answer:

Per our discussions at the meeting with RRC Staff on October 14, 2023, PEP understands that Staff has agreed to permitting all of the wells together on a single Form H-4 to allow for maximum future optionality of well utilization at the site. Please let us know if Staff has a different understanding.

6. **Section II (A) of the application states, "PEP is developing this brine mining hydrocarbon liquids, and natural gas storage facility complex to provide saturated brine for nearby chemical plant feedstock and to provide storage services for hydrocarbon liquids, natural gas, or other gaseous substances." However, the subject submission did not include a Form H-2 application pursuant to Statewide Rule 81. Revise the accompanying attachments to the subject Form H-4 application to remove reference to brine mining facility and brine mining injection, or submit the appropriate Form H-2 application pursuant to Statewide Rule 81. A Form H-2 application is subject to the Form H-2 application fee.**

Answer:
Per our discussions at the meeting with RRC Staff on October 14, 2023, we understand that PEP can proceed with this project at this time under Rules 95 and 97, without needing to submit a separate Rule 81 application, as the brine mining is incidental to the storage cavern leaching. During our meeting, we also discussed the length of time we currently anticipate to create the storage caverns in relation to the Staff's "Cavern Storage Permit Procedures" stating that additional permitting may be required for a well leaching brine for more than two years. Please see attached sample calculations regarding the modeling of cavern leaching timelines that show the expecting time to create the storage caverns is up to ten years.

Please do not hesitate to contact me or Olga Kobzar Hicks with any questions or if you need any additional information. We look forward to working with Commission Staff on this application.

Best regards,



John Hicks
Olga Kobzar
Attorneys for Pinto Energy Ptrs – STG 1, LLC

Enclosures

c: Scott Rosenquist

Enclosures to Pinto Energy Ptrs STG 1, LLC's Proposed RAD Letter Response

1. Maximum Surface Injection Pressures (RAD Items 1 and 2)

   - Revised Table of Wells (Fields 17-21 for the Form H-4)
   - Description of the Sample Flowing Wellhead Pressure Calculations
   - Pipe Flow Wizard Sample Calculations and Explanations

2. Proposed P&A Wellbore Diagrams (RAD Item 3)

3. NAD 83 Coordinates for Well Locations (RAD Item 4)

4. Cavern Leaching Timeline (RAD Item 6)

Enclosure 1 (RAD Items 1 & 2)

Maximum Surface Injection Pressures

- Revised Table of Wells (Fields 17-21 for the Form H-4)
- Description of the Sample Flowing Wellhead Pressure Calculations
- Pipe Flow Wizard Sample Calculations and Explanations

Table of Wells - Revised 12.29.2022

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC FORM H-4: TABLE OF WELLS								
17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls) / (mmcf)		daily (psig)	
					avg.	max.	avg.	max.
1 / 1	5,550' FEL & 5,238' FSL	3,750	9,000	12,000	250 mmcf	767 mmcf	1,500	2,975
2 / 2	4,506' FEL & 5,180' FSL	3,750	9,000	12,000	250 mmcf	767 mmcf	1,500	2,975
3 / 3	3,681' FEL & 4,581' FSL	3,750	9,000	12,000	250 mmcf	767 mmcf	1,500	2,975
10 / 10A	8,982' FEL & 4,279' FSL	2,250	9,000	24,000	100,000	201,600	400	997
10 / 10B	8,951' FEL & 4,269' FSL	2,250	9,000	Same as 10A	50,000	115,200	400	997
10 / 10C	8,940' FEL & 4,236' FSL	2,250	9,000	Same as 10A	500,000	1,152,000	400	997
10 / 10D	8,972' FEL & 4,247' FSL	2,250	9,000	Same as 10A	50,000	115,200	400	997
11 / 11A	8,017' FEL & 4,285' FSL	2,250	9,000	24,000	100,000	201,600	400	997
11 / 11B	8,002' FEL & 4,255' FSL	2,250	9,000	Same as 11A	50,000	115,200	400	997
11 / 11C	8,017' FEL & 4,225' FSL	2,250	9,000	Same as 11A	500,000	1,152,000	400	997
11 / 11D	8,032' FEL & 4,255' FSL	2,250	9,000	Same as 11A	50,000	115,200	400	997
13 / 13A	8,976' FEL & 3,276' FSL	2,250	9,000	24,000	100,000	201,600	400	997
13 / 13B	8,946' FEL & 3,292' FSL	2,250	9,000	Same as 13A	50,000	115,200	400	997
13 / 13C	8,916' FEL & 3,277' FSL	2,250	9,000	Same as 13A	500,000	1,152,000	400	997
13 / 13D	8,946' FEL & 3,262' FSL	2,250	9,000	Same as 13A	50,000	115,200	400	997
14 / 14A	8,010' FEL & 3,283' FSL	2,250	9,000	24,000	100,000	201,600	400	997
14 / 14B	7,995' FEL & 3,253' FSL	2,250	9,000	Same as 14A	50,000	115,200	400	997
14 / 14C	8,010' FEL & 3,223' FSL	2,250	9,000	Same as 14A	500,000	1,152,000	400	997
14 / 14D	8,025' FEL & 3,253' FSL	2,250	9,000	Same as 14A	50,000	115,200	400	997
15 / 15A	8,969' FEL & 2,274' FSL	2,250	9,000	24,000	100,000	201,600	400	997
15 / 15B	8,958' FEL & 2,317' FSL	2,250	9,000	Same as 15A	50,000	115,200	400	997
15 / 15C	8,927' FEL & 2,317' FSL	2,250	9,000	Same as 15A	500,000	1,152,000	400	997
15 / 15D	8,937' FEL & 2,285' FSL	2,250	9,000	Same as 15A	50,000	115,200	400	997
16 / 16A	8,000' FEL & 2,281' FSL	2,250	9,000	24,000	100,000	201,600	400	997
16 / 16B	8,019' FEL & 2,311' FSL	2,250	9,000	Same as 16A	50,000	115,200	400	997
16 / 16C	8,004' FEL & 2,341' FSL	2,250	9,000	Same as 16A	500,000	1,152,000	400	997
16 / 16D	7,989' FEL & 2,311' FSL	2,250	9,000	Same as 16A	50,000	115,200	400	997
20	7,246' FEL & 5,526' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
21	7,245' FEL & 5,376' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
22	7,244' FEL & 5,226' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
23	7,243' FEL & 5,076' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
24	7,242' FEL & 4,926' FSL	2,250	4,000	100	12,000	51,500	1,100	1,550
25	7,045' FEL & 5,477' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550

Table of Wells - Revised 12.29.2022

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC FORM H-4: TABLE OF WELLS								
17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls) / (mmcf)		daily (psig)	
					avg.	max.	avg.	max.
26	7,044' FEL & 5,278' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
27	7,043' FEL & 5,078' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
28	7,041' FEL & 4,877' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
29	6,843' FEL & 5,179' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
30	6,842' FEL & 4,979' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550

Description of the Sample Flowing Wellhead Pressure Calculations

Attached are sample calculations in support of proposed maximum wellhead injection pressures and flowrates to demonstrate PEP's capability to ascertain the appropriate operating parameters that will not exceed allowable limits.

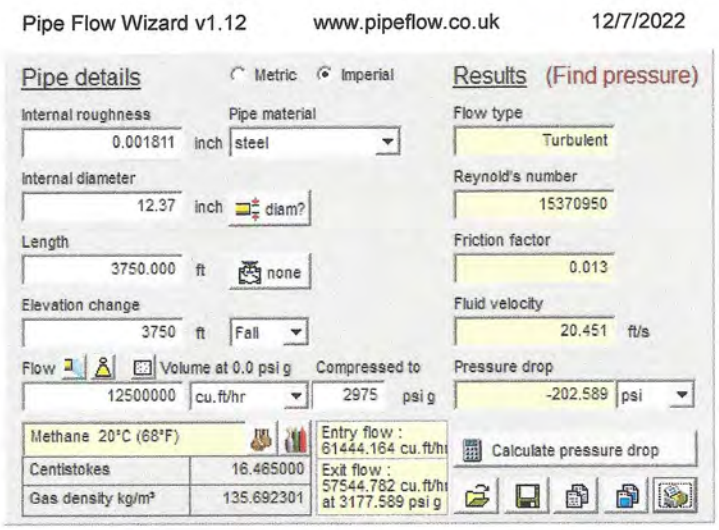
Flowing wellhead pressures were calculated using *Pipeflow* software. Technical information about the software can be found at www.pipeflow.com/technical-documents. Sample calculations were developed for both solution-mining and hydrocarbon storage modes of operation.

Flowing wellhead pressure calculations during solution mining are calculated for a dual hanging string and assumes brine flow exits the wellhead at 100 psig.

Flowing wellhead pressure calculations for the natural gas cavern assumes a flow rate of 500,000 mcf/d on the last day of injection reaching a 0.847 psi/ ft gradient or 3,177.7 psig at the casing shoe. It was assumed that the de-brining string would be cut near the casing shoe of 3,750 ft subsea and flow would be in the annular space as well as the hanging string. The velocity is below industry practice of 35 ft/ sec. However, the actual maximum flow rate will be up to 767,000 mcf/d when the cavern is at low inventory and achievable without exceeding the casing shoe pressure gradient limit. Moreover, the compressors will be equipped with high pressure shut down switches to prevent exceeding the allowable wellhead pressure of 2975 psig.

The Crude Oil cavern calculation was run so as to approach the design specification of 1,500,000 Bbls/d of flow, but the actual *Pipeflow* calculations were driven to a common flow velocity, of approximately 15 ft/ sec recognizing that in practice, the three separate casing designs (A well 16", C well 30" and B&D wells 30"x26") in each crude cavern would flow to a common pipe header and result in equal wellhead pressures with varying flow rates coming from a common cavern.

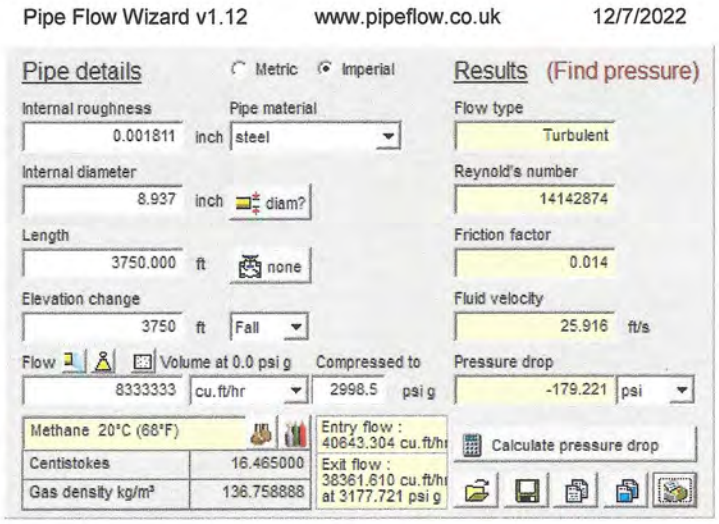
The LPG cavern calculation is based on a maximum casing shoe pressure due to the multitude of potential types of product to store. For this example, propane was selected as the product with typical chemical properties to represent the potential products that might be stored in the caverns. For the purposes of demonstrating the capability to achieve the proposed maximum flow rate without exceeding the allowable pressure gradient at the casing shoe, the analysis assumes a minimum surface discharge pressure of 250 psig was required at the wellhead to maintain a liquid product. Injection pressure to achieve the same flow rate would amount to the sum of the minimum pressure plus friction losses minus the hydrostatic head of liquid propane.



Pinto Cavern Wells 1, 2 and 3
Gas Storage Operations

Flow during injection in the 16" x 9 5/8" annulus assuming a rate of 300,000 Mcf/d

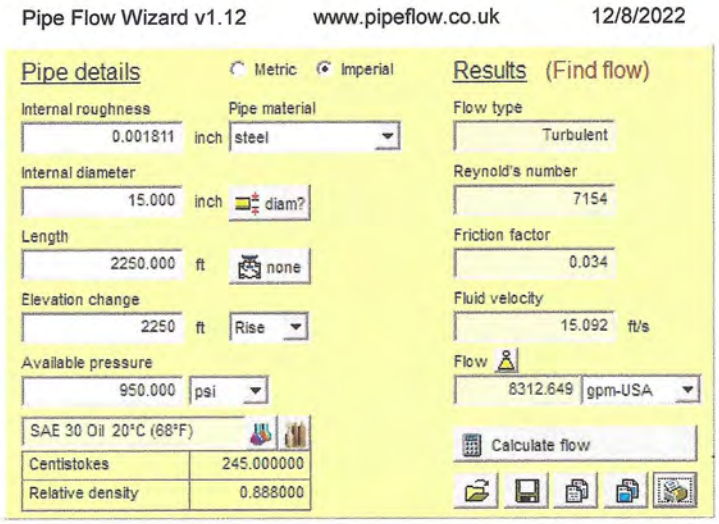
Natural gas compressed to 2975 psig results in a casing seat pressure of 3177.6 psig. Resulting in a gradient at the casing shoe of 0.847 psi/ft.

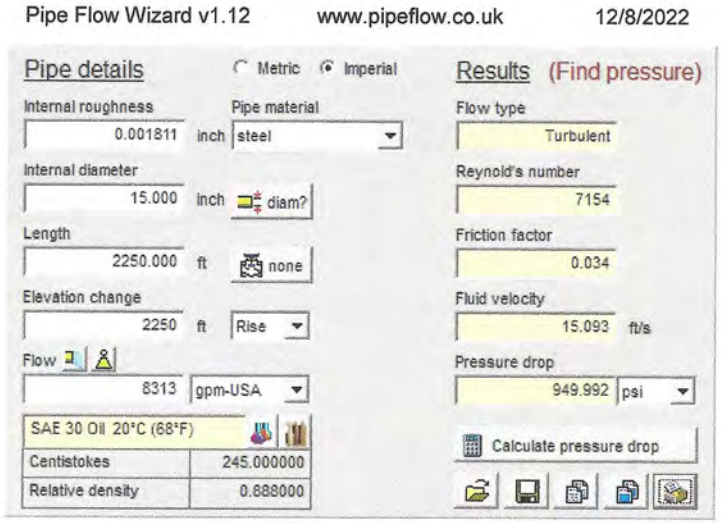


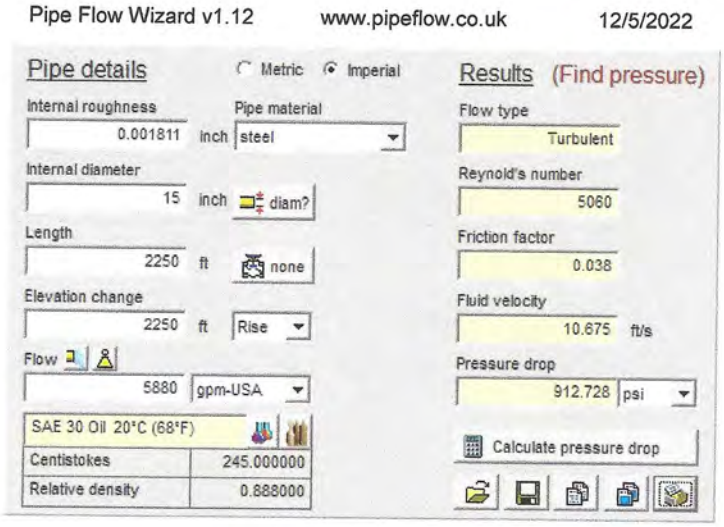
Flow during injection in the 9 5/8" hanging string assuming a rate of 200,000 Mcf/d

Natural gas compressed to 2998.5 psig results in a casing seat pressure of 3177.7 psig. Resulting in a gradient at the casing shoe of 0.847 psi/ft.

Pipeflow Wizzard accounts for friction loss during injection, flow is turbulent, and gas velocity is well below the industry critical 35 ft/sec







Pinto Oil Caverns 10-11 and 13-16 ("A" Wells)

16" Tubingless Product Flow Max Flow/Pressure Calculation

The Pipeflow Wizard software calculates that at a product velocity of 15 ft/sec, the oil discharge rate of 8312.7 gal/ min or 285,007 bbls per day with 950 psi available at the casing shoe to overcome the friction loss determined when solving for pressure. In order to obtain a surface discharge flow of at least 100 psig, the required casing shoe pressure is 1050 psig.

This rate honors the maximum casing shoe gradient:

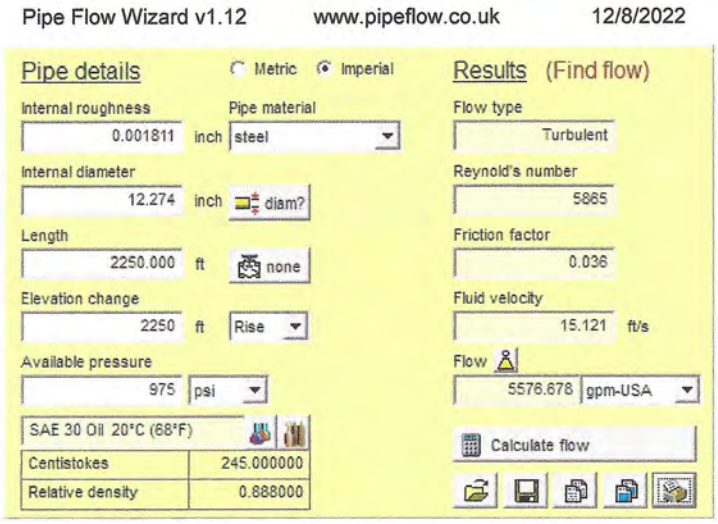
1050 psig / 2250 ft = 0.46 psi/ft. < 0.8 psi/ft.

Similarly, the maximum surface injection pressure at the maximum flow rate must not exceed:

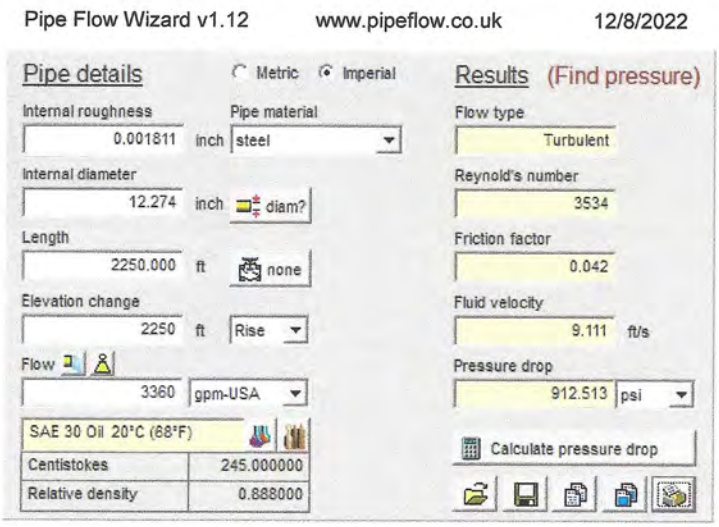
WHP = Max PSI at Shoe - Oil Head
WHP = 1800 - ((.435)(.82)(2250))
WHP = 997.4 psig > 950 psig friction loss

These sample calculations show that the proposed flow rate is feasible without exceeding maximum allowable casing seat pressure gradient.

Planned flow of 5,880 gpm is substantially below the calculated maximum flow and will also honor the statutory maximum casing shoe pressure of 1800 psi.







Pinto Oil Caverns 10-11, 13-16 ("B & D Wells

30"x 26" Annular Product Flow Max Flow/Pressure Calculation

The Pipeflow Wizard software calculates that at a product velocity of 15 ft/sec, the a rate of 5,577 gal/ min or 191,211 bbls per day with 975 psi available at the casing shoe. In order to obtain a surface flow of at least 100 psig, the required casing shoe pressure is 1075 psig.

This rate honors the maximum casing shoe gradient:

1075 psig / 2250 ft = 0.48 psi/ft. < 0.8 psi/ft

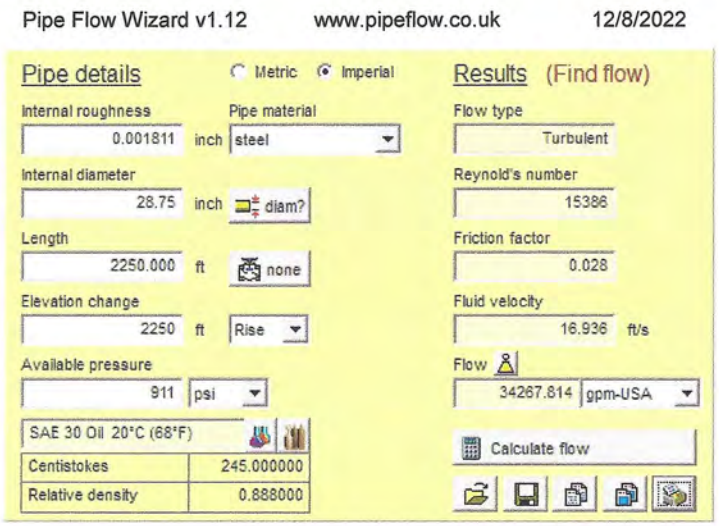
Similarly, the maximum surface injection pressure at the maximum flow rate must not exceed:

WHP = Max PSI at Shoe - Oil Head
WHP = 1800 - ((.435)(.82)(2250))
WHP = 997.4 psig > 975 psig friction loss

These sample calculations show that the proposed flow rate is feasible without exceeding maximum allowable casing seat pressure gradient.

Planned flow of 3,360 gpm is substantially below the calculated maximum flow and will also honor the statutory maximum casing shoe pressure of 1800 psi.

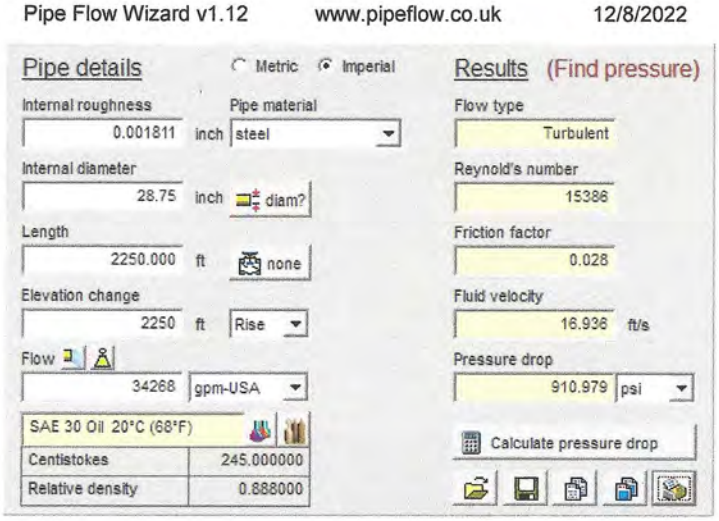
Pinto Oil Caverns 10-11, 13-16 ("C Wells")
30" Tubingless Well Product Flow Max Flow/Pressure Calculation



The Pipeflow Wizard software calculates that at a product velocity of 17 ft/sec, the a rate of 34,268 gal/ min or 1,174,903 bbls per day with 911 psi available at the casing shoe. In order to obtain a surface flow of 100 psig, the required casing shoe pressure is 1011. This rate honors the maximum casing shoe gradient:

1011 psig / 2250 ft = 0.45 psi/ft. < 0.8 psi/ft

These sample calculations show that the proposed flow rate is feasible without exceeding maximum allowable casing seat pressure gradient.



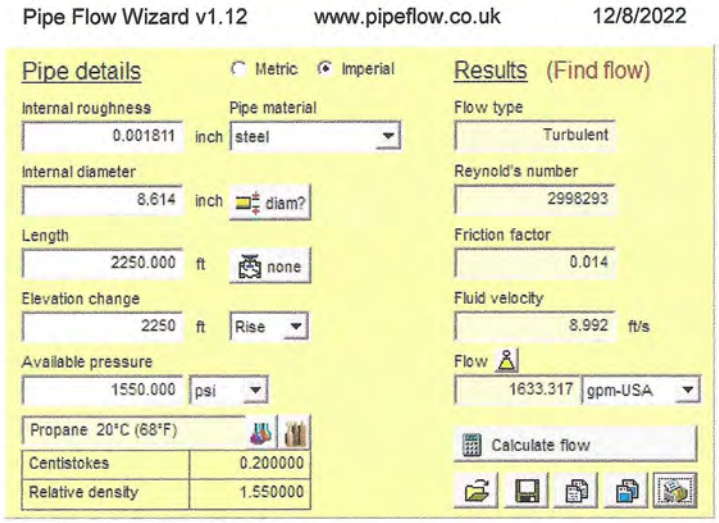
Similarly, the maximum surface injection pressure at the maximum flow rate must not exceed:

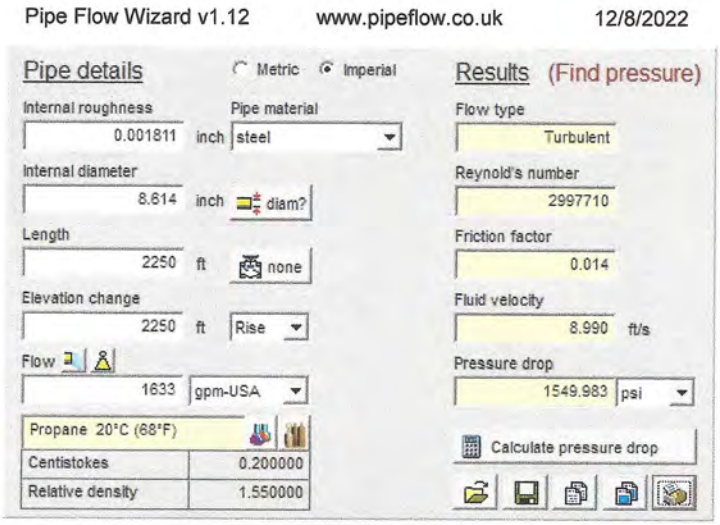
WHP = Max PSI at Shoe - Oil Head
WHP = 1800 - ((.435)(.82)(2250))
WHP = 997.4 psig > 911 psig friction loss

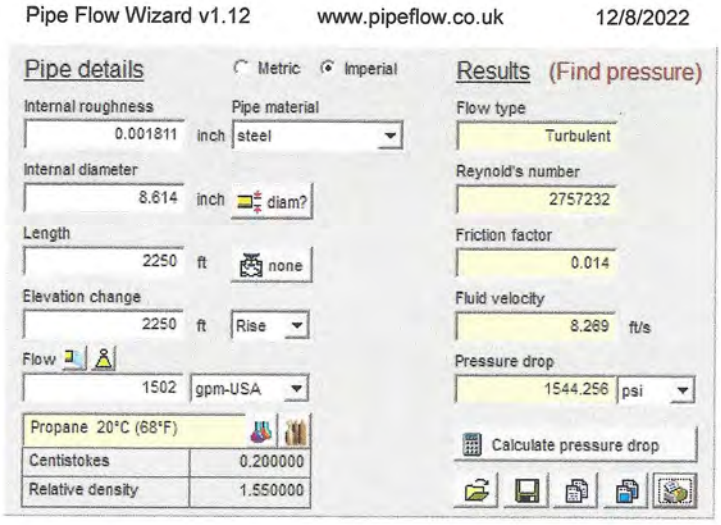
These sample calculations show that the proposed flow rate is feasible without exceeding maximum allowable casing seat pressure gradient.



Planned flow of 33,600 gpm is below the calculated maximum flow and will also honor the allowable maximum casing shoe pressure of 1800 psi.







Pinto LPG Caverns 20-30

13 3/8" x 9 5/8" LPG Well Product Annular Flow Max Flow/Pressure Calculation

The Pipeflow Wizard software calculates that at a product velocity of 9 ft/sec, the a rate of flow would be 1633 gal/ min or 55,989 bbls per day with 1550 psi available at the casing shoe to overcome friction loss and maintain a minimum surface flow of 250 psig based on an allowable casing shoe pressure is 1800 psig.

1800 psig / 2250 ft = 0.80 psi/ft.

Similarly, the maximum surface injection pressure at this maximum flow rate must not exceed:

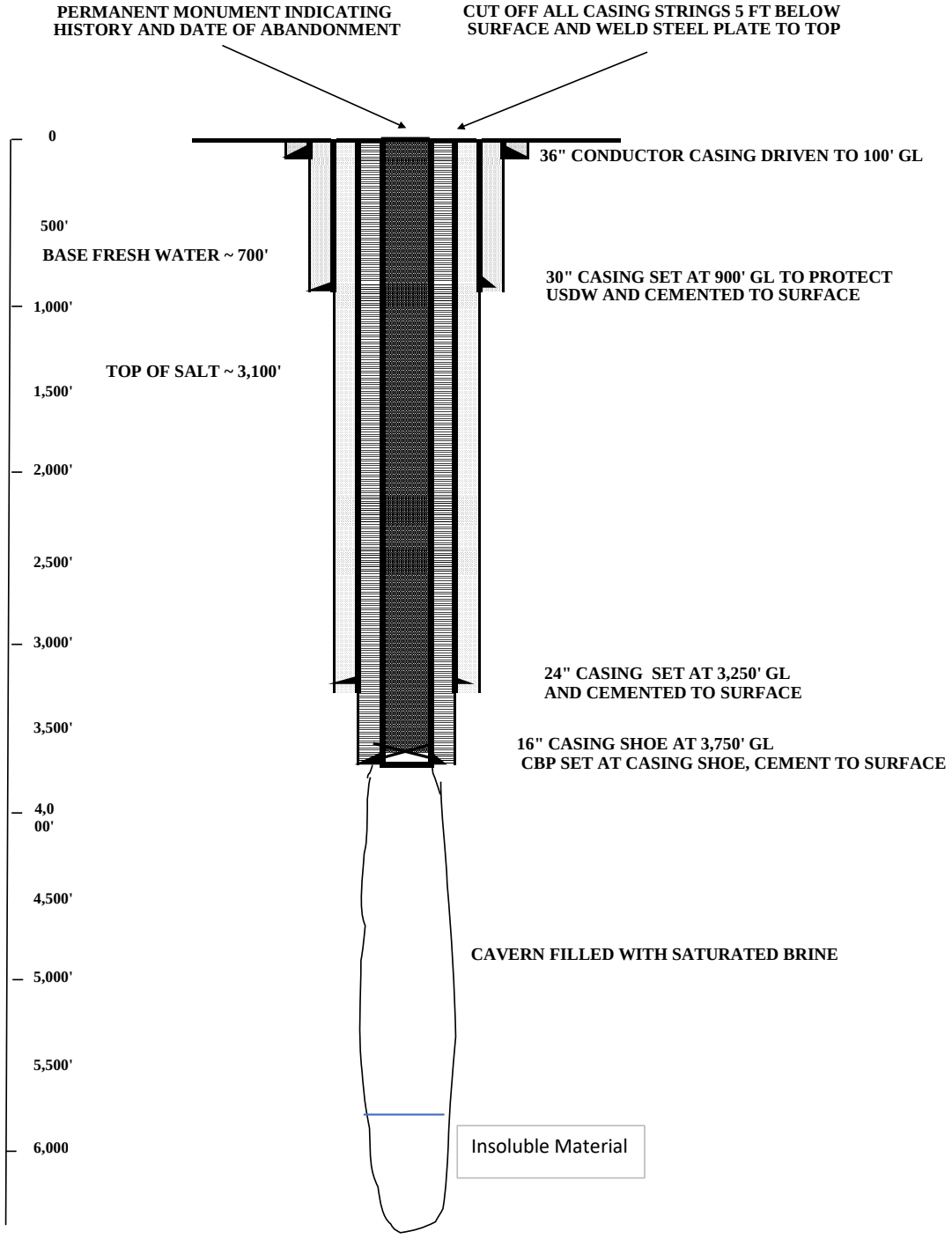
WHP = Max PSI at Shoe - Propane Head + Minimum PSI
WHP = 1800 - ((.435)(.51)(2250)) + 250
WHP = 1550 psig = friction loss at maximum flow rate.

These sample calculations show that the proposed flow rate is feasible without exceeding maximum allowable casing seat pressure gradient because the planned flow of 1,502 gpm (51,500 bbl/day)

Enclosure 2 (RAD Item 3)

Proposed P&A Wellbore Diagrams

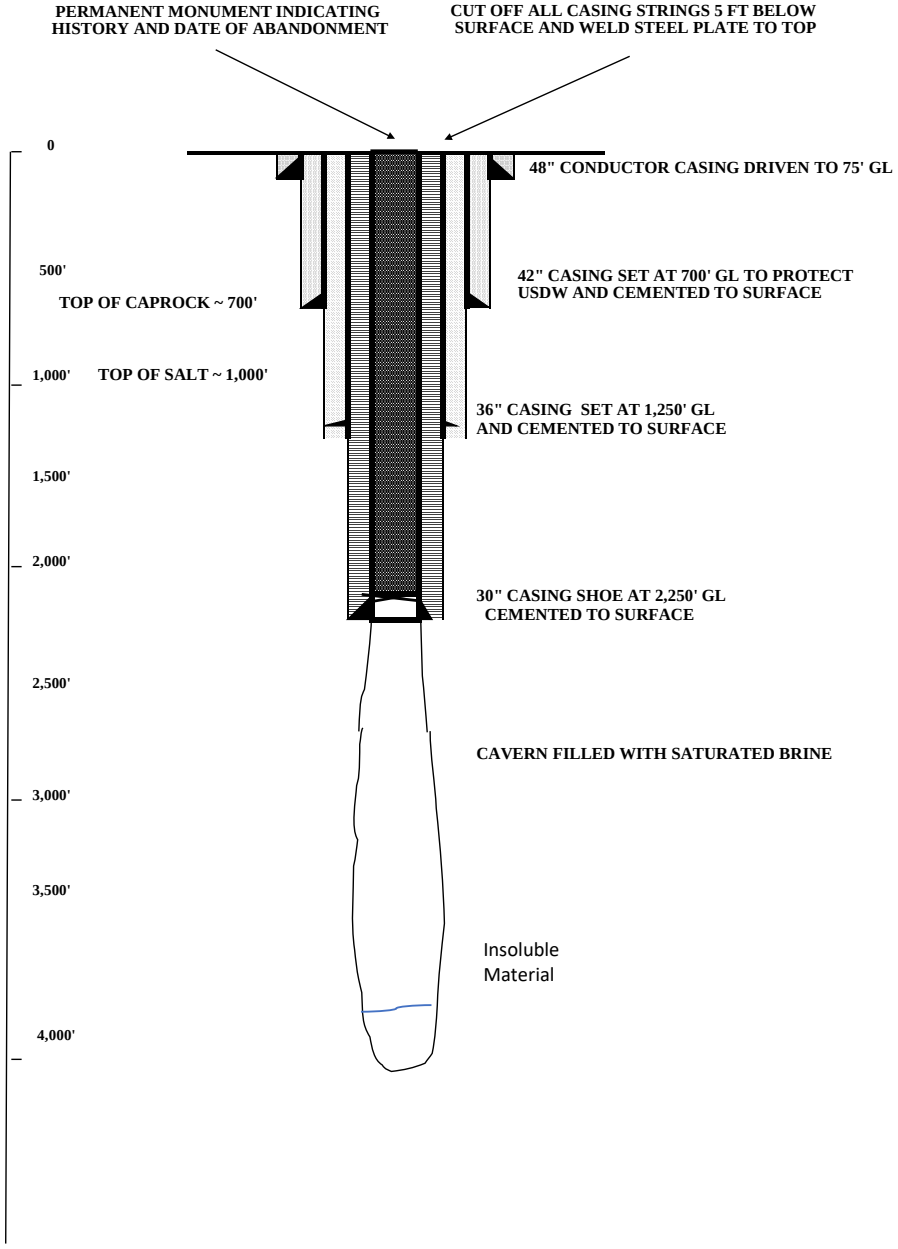
PLUGGING DIAGRAM FOR WELLS NO. 1, 2, & 3



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

TYPICAL P&A PLAN FOR 16" GAS STORAGE WELLS

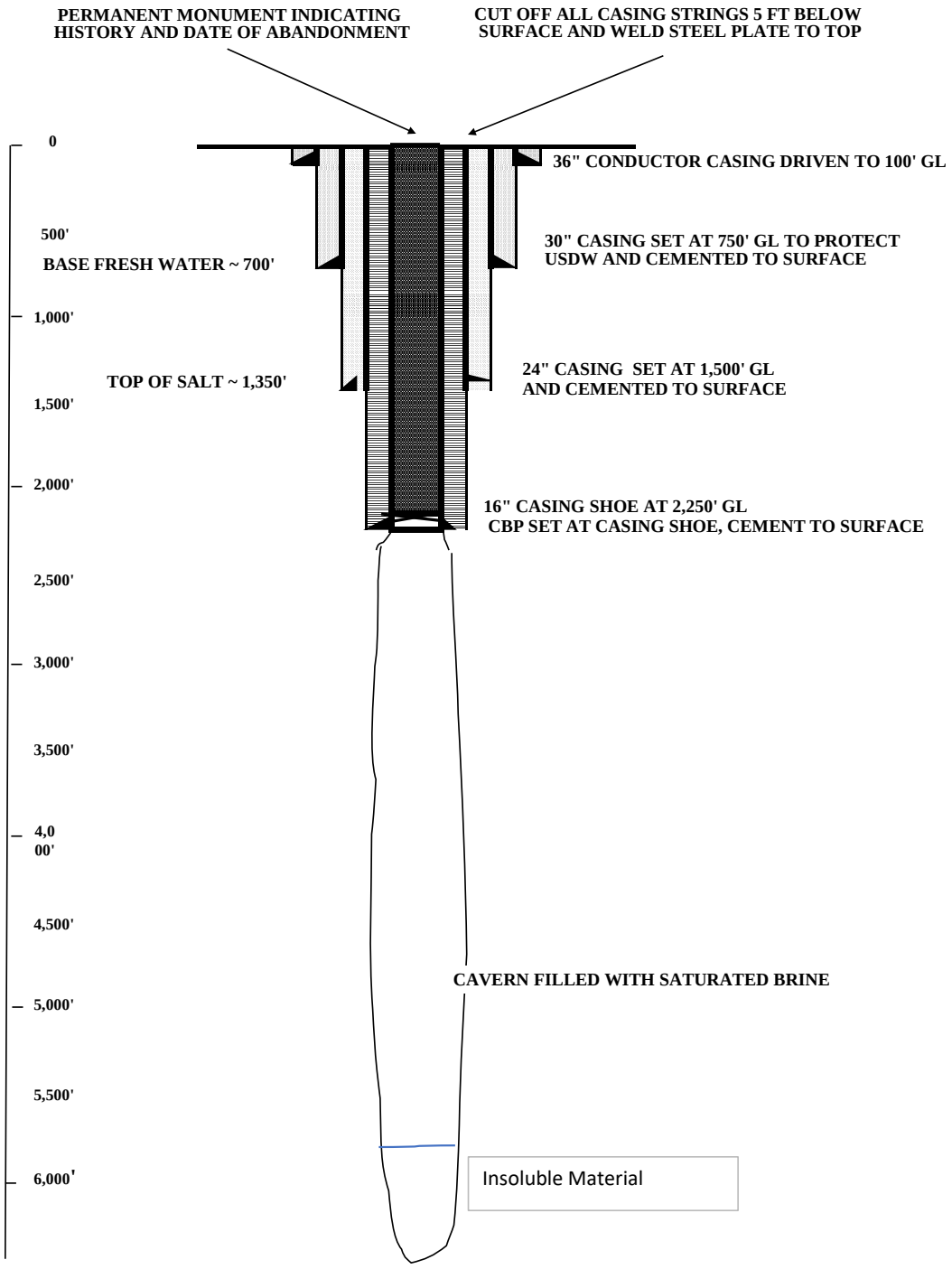
PLUGGING DIAGRAM
WELLS NO. 10, 11, 13, 14, 15, & 16



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

TYPICAL P&A PLAN FOR 30" HYDROCARBON STORAGE WELLS

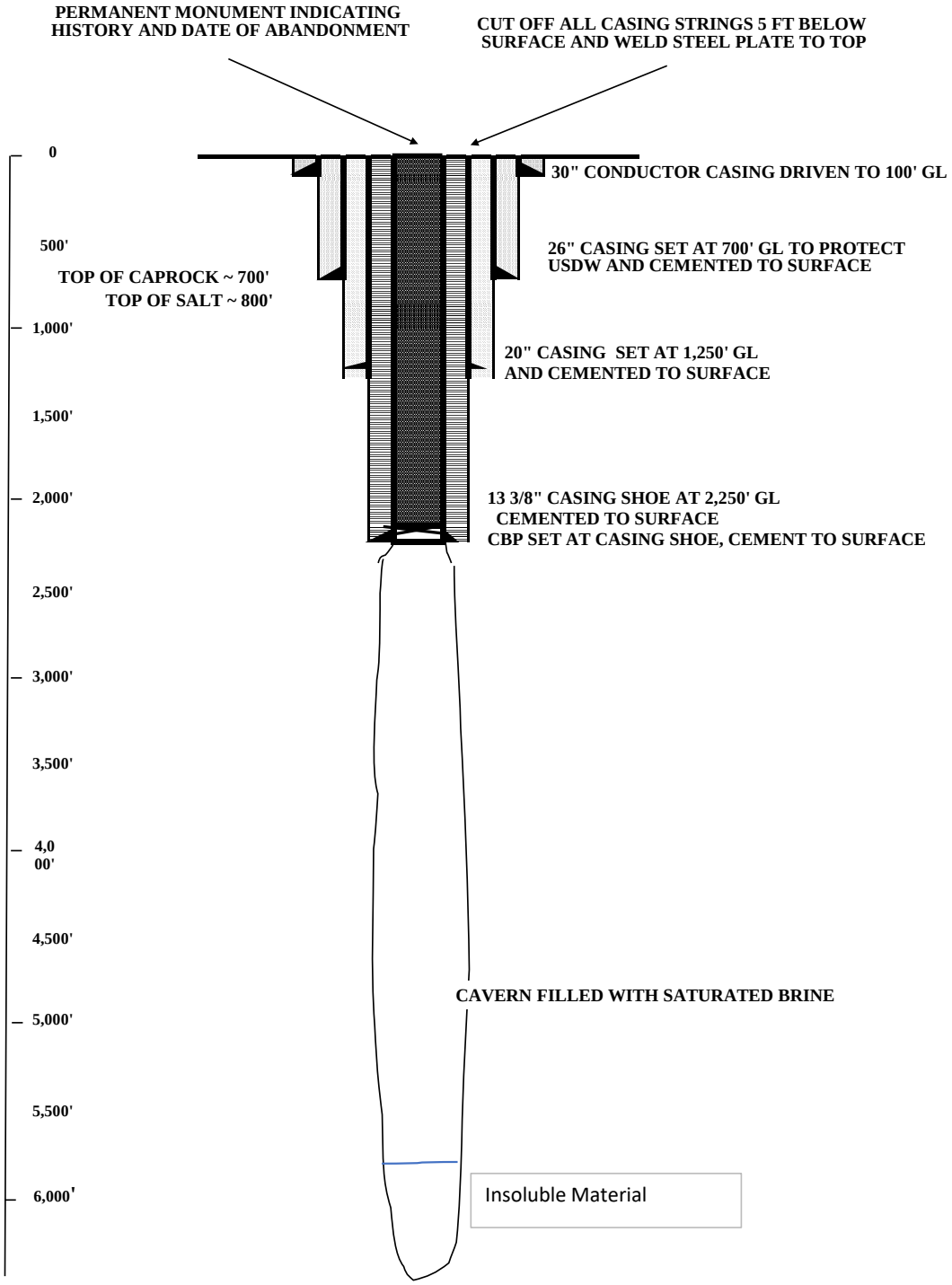
PLUGGING DIAGRAM FOR WELLS NO. 10, 11, 13, 14, 15, 16 - B, C, & D



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

TYPICAL P&A PLAN FOR 16" CRUDE STORAGE WELLS WELLS

PLUGGING DIAGRAM WELLS NO. 20 - 30



PINTO ENERGY PARTNERS - STRATTON RIDGE DOME

TYPICAL P&A PLAN FOR 13 3/8" LPG STORAGE WELLS

Enclosure 3 (RAD Item 4)

NAD 83 Coordinates for Well Locations

NAD 83 Coordinates for Proposed Wells

Point ID	Latitude	Longitude
1	29.03728702 N	95.33989793 W
2	29.03716754 N	95.3366286 W
3	29.03556003 N	95.33401558 W
10A	29.03452578 N	95.3505156 W
10B	29.03449834 N	95.35041538 W
10C	29.03441144 N	95.3503802 W
10D	29.03443885 N	95.35048042 W
11A	29.03457904 N	95.34749541 W
11B	29.03449735 N	95.34744659 W
11C	29.03441403 N	95.34749164 W
11D	29.03449572 N	95.34754045 W
13A	29.03177022 N	95.35045268 W
13B	29.03181313 N	95.35035976 W
13C	29.03177352 N	95.35026496 W
13D	29.03173063 N	95.35035788 W
14A	29.03182348 N	95.34743253 W
14B	29.03174182 N	95.34738372 W
14C	29.0316585 N	95.34742876 W
14D	29.03174016 N	95.34747758 W
15A	29.02901466 N	95.35038976 W
15B	29.02910274 N	95.35035857 W
15C	29.02913368 N	95.35025969 W
15D	29.02904557 N	95.35029087 W
16A	29.02906792 N	95.34736966 W
16B	29.02914958 N	95.34741846 W
16C	29.02923291 N	95.34737342 W
16D	29.02915124 N	95.34732461 W
20	29.03801943 N	95.34513422 W
21	29.03760697 N	95.34512482 W
22	29.03719451 N	95.34511542 W
23	29.03678202 N	95.34510601 W
24	29.03636956 N	95.34509661 W
25	29.03789296 N	95.34450532 W
26	29.037343 N	95.34449277 W
27	29.03679306 N	95.34448025 W
28	29.03624306 N	95.34446773 W
29	29.03707905 N	95.34386076 W
30	29.03652906 N	95.34384824 W

Enclosure 4 (RAD Item 6)

Cavern Leaching Timeline Estimates

Brine to Storage Cavern Timeline

The attached spreadsheet is a compilation of multiple modeling runs encompassing 10 years of salt production utilizing the Solution Mining Research Institute solution mining modeling software "Salgas".

The model require inputs for the well completion (tubulars and depths), salt impurities, and fresh water (including initial salinity) flows. The software then predicts the salinity of the produced brine and the shape of the resulting cavity that is mined while accounting for insoluble material remaining in the cavern floor.

The summary page records the results of each run based on the duration and mode of mining, either direct circulation or reverse circulation. Brine saturation is reported as an average over the period of modeled solution mining. The goal of the modeling was to arrive at saturation as soon as possible to minimize the need for disposal while simultaneously ensuring optimal cavern shape for storage operations.

Secondarily, the modeling (see run 19) also indicates the earliest time a commercial oil storage cavern would be available when maximizing brine production; approximately 4 million bbls of space above a depth of 3600 ft measured depth.

Cavern shape evolution is depicted at several points in time in the attached 2-D graphical output pages.

https://1drv.ms/f/s!AuiK0IfevOM-gpdHZlqQ5nsA7CFE5w

This model was run utilizing a 16" production string, 13 3/8" outer hanging string and 8 5/8" inner string. Fresh water flow as in direct circulation for the first year, then flow was reversed for the remainder of the solution mining life of the cavern. Outer hanging string moves and inner hanging string cuts are noted in red and blue color in the depth table managed to maintain cavern shape and allow injected water to enter the cavern above insoluble material remaining in the cavern.

Potential

SalGas Brine Mining Cavern Model

10- year Brine Sales Program to Oil Storage

	Cum Days	Cumulative Brine Production days	Method	GPM	Duration days	Blanket ft
Run 1	90		Dir	450	90	5640
Run 2	180		Dir	900	90	5640
Run 3	270		Dir	1500	90	5640
Run 4	360		Dir	1500	90	5640
Run 5	540	180	Rev	1500	180	5500
Run 6	720	360	Rev	1500	180	5200
Run 7	900	540	Rev	1500	180	4800
Run 8	1080	720	Rev	1500	180	4900
Run 9	1260	900	Rev	1500	180	4700
Run 10	1440	1080	Rev	1500	180	4500
Run 11	1620	1260	Rev	1500	180	4200
Run 12	1800	1440	Rev	1500	180	3800
Run 13	1980	1620	Rev	1500	180	3800
Run 14	2160	1800	Rev	1500	180	3500
Run 15	2340	1980	Rev	1500	180	3000
Run 16	2520	2160	Rev	1500	180	2900
Run 17	2700	2340	Rev	1500	180	2700
Run 18	2880	2520	Rev	1500	180	2350
Run 19	3060	2700	Rev	1500	180	2350
Run 20	3240	2880	Rev	1500	180	2350
Run 21	3840	3480	Rev	1500	600	2350
Run 22	3960	3600	Rev	1500	120	2350

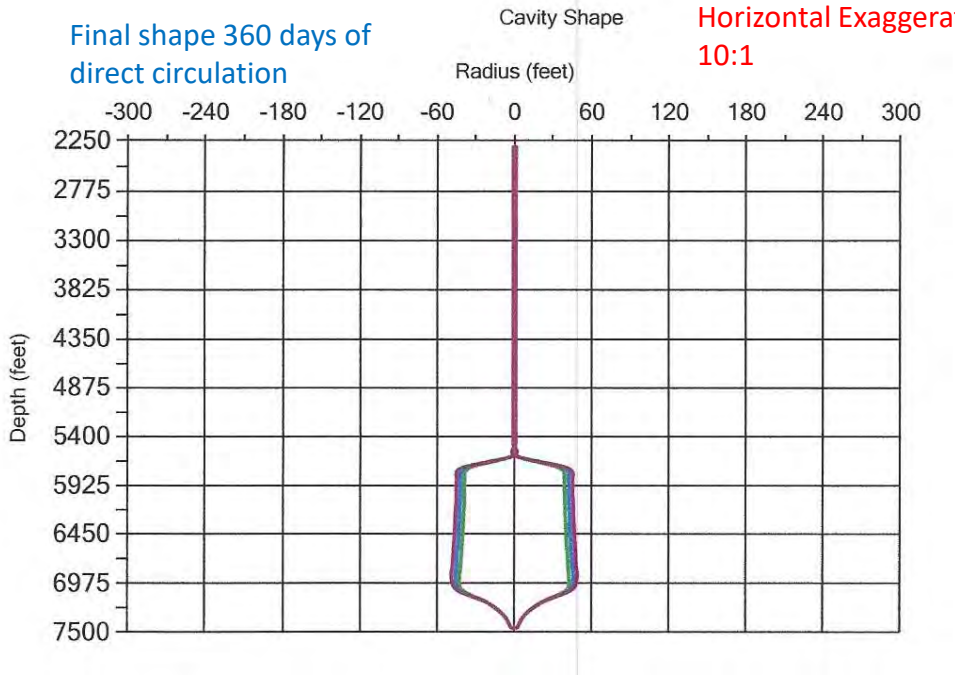
Red numbers indicate outer hanging string moves
Blue numbers indicate inner hanging string pipe cuts
Yellow highlight indicates volume about 3600 ft subsea

Outer Hanging String Depth ft	Inner Hanging String Depth ft	Brine Saturation %	**Space Created in bbls**	
5650	7470	80	171,928	
5650	7170	79		
5650	7090	77		
5650	7040	80	**1,629,150**	
5650	7010	96.6		
5650	6930	97.9		
5350	6870	98.6	**5,959,432**	
5350	6800	99 +		
5350	6740	99 +		
5350	6600	99 +	**10,326,888**	
5050	6600	99 +		
5050	6400	99 +		
4950	6400	99 +		
4950	6400	99 +	**16,188,963**	
4550	6300	99 +		
4550	6300	99 +		
4550	6200	99 +		
4550	6200	99 +	**22,170,594**	
4550	6100	99 +		
4550	6100	99 +		
4550	6100	99 +		
4550	6100	99 +	**31,105,338**	**4,534,837**

SALGAS Cavern Solution Mining Simulation Results – Pinto #14 Well

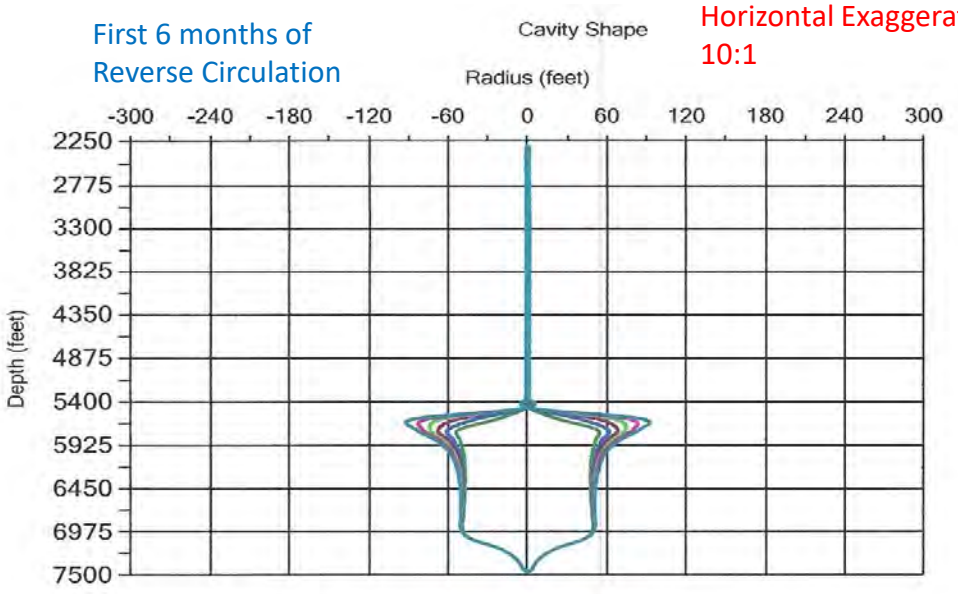
Results at days 360 and 540

Final shape 360 days of direct circulation



Horizontal Exaggeration 10:1

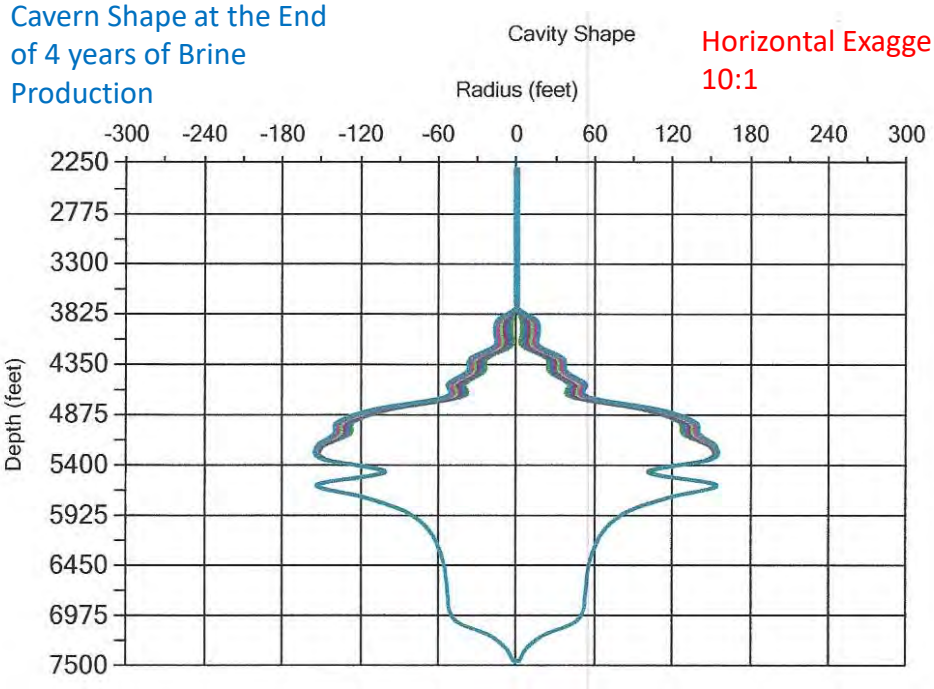
First 6 months of Reverse Circulation



Horizontal Exaggeration 10:1

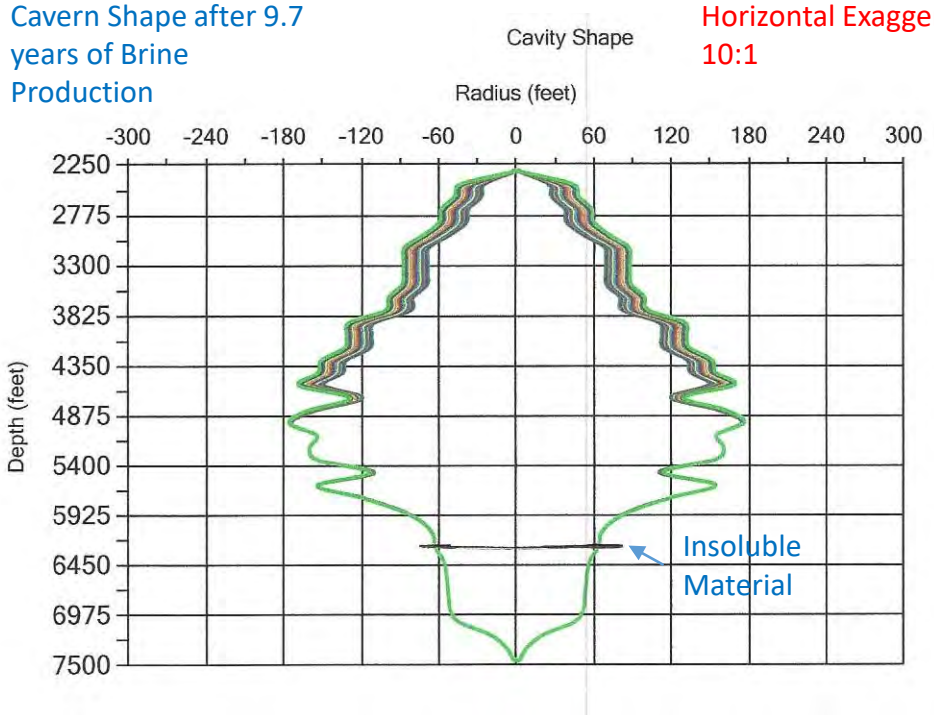
Cavern Results at days 1800 and 3840

Cavern Shape at the End of 4 years of Brine Production



Horizontal Exaggeration 10:1

Cavern Shape after 9.7 years of Brine Production

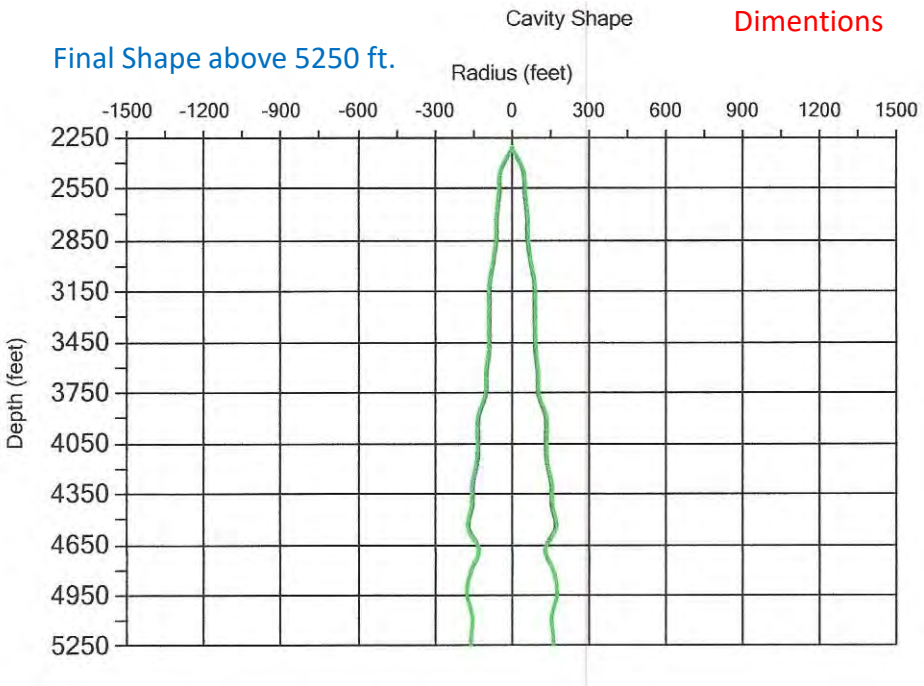


Horizontal Exaggeration 10:1

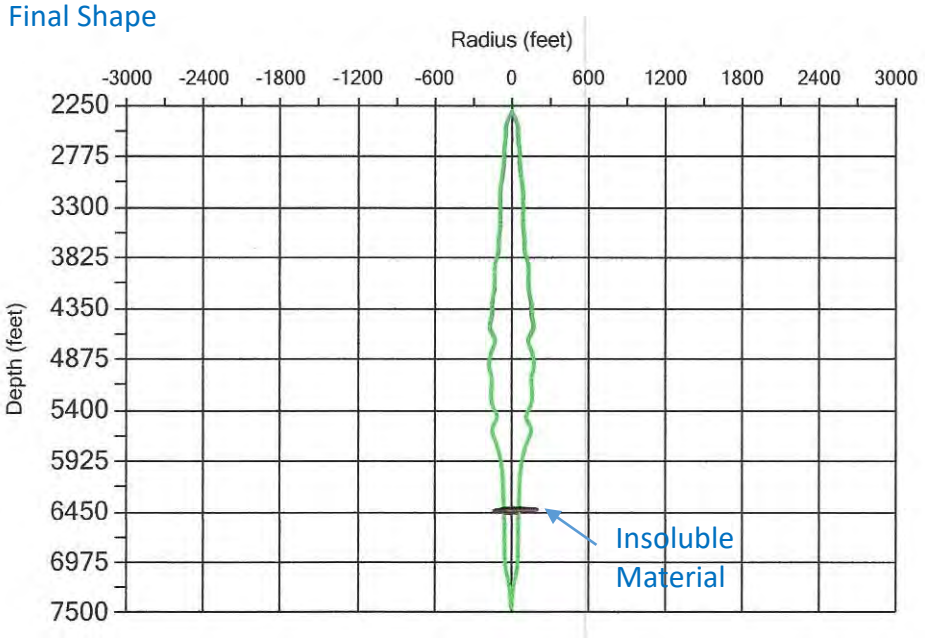
SALGAS Solution Mining Model Results at day 3,960 – 10 Years of Brine Production

Cavern Shapes nearer to 1:1 Dimentions

Final Shape above 5250 ft.



Final Shape



CHRISTI CRADDICK, CHAIRMAN
WAYNE CHRISTIAN, COMMISSIONER
JIM WRIGHT, COMMISSIONER

DANNY SORRELLS
DEPUTY EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
PAUL DUBOIS, P.E.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

January 11, 2023

PINTO ENERGY PTRS - STG 1, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON TX 77098

RE: Application for Permit to Create, Operate, and Maintain an Underground Storage Facility (Form H-4)
STRATTON RIDGE Field, PINTO ENERGY PTRS - STG 1, LLC LEASE (00000) Lease, Well Nos. 1 ; 2 ; 3 ; 10A ; 10B ; 10C ; 10D ; 11A ; 11B ; 11C ; 11D ; 13A ; 13B ; 13C ; 13D ; 14A ; 14B ; 14C ; 14D ; 15A ; 15B ; 15C ; 15D ; 16A ; 16B ; 16C ; 16D ; 20 ; 21 ; 22 ; 23 ; 24 ; 25 ; 26 ; 27 ; 28 ; 29 ; 30 , BRAZORIA County, Texas, District 03
Application Tracking No. **55491**

Our administrative and technical reviews of the application and 2nd submission received on January 3, 2023, indicate the following matters that will need to be corrected to complete your application:

1. Affected parties must be re-notified of the revised Form H-4, pursuant to Statewide Rules 95(e)(1) and 97(e)(1), due to larger values for some wells in items 20 and 21 as compared to original H-4.

2. A draft permit is included with this RAD letter. The operator may include comments in response to the draft permit as part of the response to this RAD letter.

Please respond to this letter in its entirety, if possible. The Texas Administrative Code, Title 16, Part 1, Chapter 1, Rule 201 states that an applicant may make no more than two supplemental filings to complete an application. If, after two supplemental submissions, the application is still incomplete, the division or section shall administratively deny the application.

Please submit the requested information to the Injection-Storage Permits Unit (UIC) of the Railroad Commission of Texas at **UIC_Permits@rrc.texas.gov** or PO Box 12967, Austin TX 78711. Direct questions to UIC by email at the given email address, or by phone to 512-463-6792. The subject line of the email must include tracking no. **55491.**

UIC permitting procedures can also be found at https://www.rrc.texas.gov/oil-and-gas/applications-and-permits/injection-storage-permits/

CHRISTI CRADDICK, CHAIRMAN
WAYNE CHRISTIAN, COMMISSIONER
JIM WRIGHT, COMMISSIONER

DANNY SORRELLS
DEPUTY EXECUTIVE DIRECTOR
DIRECTOR, OIL AND GAS DIVISION
PAUL DUBOIS, P.E.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

February 16, 2023

SECOND REQUEST
Application will be returned if requested information is not received within 30 days

PINTO ENERGY PTRS - STG 1, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON TX 77098

RE: Application for Permit to Create, Operate, and Maintain an Underground Storage Facility (Form H-4)
STRATTON RIDGE Field, PINTO ENERGY PTRS - STG 1, LLC LEASE (00000) Lease, Well Nos. 1 ; 2 ; 3 ; 10A ; 10B ; 10C ; 10D ; 11A ; 11B ; 11C ; 11D ; 13A ; 13B ; 13C ; 13D ; 14A ; 14B ; 14C ; 14D ; 15A ; 15B ; 15C ; 15D ; 16A ; 16B ; 16C ; 16D ; 20 ; 21 ; 22 ; 23 ; 24 ; 25 ; 26 ; 27 ; 28 ; 29 ; 30 , BRAZORIA County, Texas, District 03
Application Tracking No. **55491**

Our administrative and technical reviews of the application and 2nd submission received on January 3, 2023, indicate the following matters that will need to be corrected to complete your application:

1. Affected parties must be re-notified of the revised Form H-4, pursuant to Statewide Rules 95(e)(1) and 97(e)(1), due to larger values for some wells in items 20 and 21 as compared to original H-4.

2. A draft permit is included with this RAD letter. The operator may include comments in response to the draft permit as part of the response to this RAD letter.

Please respond to this letter in its entirety, if possible. The Texas Administrative Code, Title 16, Part 1, Chapter 1, Rule 201 states that an applicant may make no more than two supplemental filings to complete an application. If, after two supplemental submissions, the application is still incomplete, the division or section shall administratively deny the application.

Please submit the requested information to the Injection-Storage Permits Unit (UIC) of the Railroad Commission of Texas at **UIC_Permits@rrc.texas.gov** or PO Box 12967, Austin TX 78711. Direct questions to UIC by email at the given email address, or by phone to 512-463-6792. The subject line of the email must include tracking no. **55491.**

UIC permitting procedures can also be found at https://www.rrc.texas.gov/oil-and-gas/applications-and-permits/injection-storage-permits/

From:	UIC_Permits
To:	Ashlee Kenney
Subject:	FW: Tracking No. 55491; Pinto Energy Response to UIC RAD Letter; Stratton Ridge Field, Pinto Energy Ptrs-STG 1, LLC Lease, Brazoria County, TX, District 3
Date:	Tuesday, February 21, 2023 7:57:41 AM
Attachments:	TN 55491 - Pinto Energy 2.20.23 Response to UIC RAD Ltr.pdf

From: Michaelle Peters <mpeters@scottdoug.com>
Sent: Monday, February 20, 2023 4:26 PM
To: UIC_Permits <UIC_Permits@rrc.texas.gov>
Cc: Sean Avitt <Sean.Avitt@rrc.texas.gov>; Scott Rosenquist <Scott.Rosenquist@rrc.texas.gov>; tsoriero@cockrell.com; John Hicks <jhicks@scottdoug.com>; Olga Kobzar <okobzar@scottdoug.com>; Luis Garcia <lgarcia@scottdoug.com>
Subject: Tracking No. 55491; Pinto Energy Response to UIC RAD Letter; Stratton Ridge Field, Pinto Energy Ptrs-STG 1, LLC Lease, Brazoria County, TX, District 3

CAUTION: This email originated from outside of the Railroad Commission of Texas. Do NOT click links or open attachments from unknown sources without first confirming the message is legitimate. If you believe this to be a malicious and/or phishing email, please contact the ITS Help Desk at 512-463-7229. Do not respond to or forward the email, click on any links or open any attachments without guidance from the Help Desk

Attached is a response to UIC RAD letter from John Hicks and Olga Kobzar, Attorneys for Pinto Energy Ptrs-STG 1, LLC. If you have a problem opening the attachment, please let me know. Thank you.

MICHAELLE PETERS
LEGAL ASSISTANT
mpeters@scottdoug.com

SCOTT DOUGLASS McCONNICO
303 Colorado Street, Suite 2400
Austin, TX 78701
p: 512.495.6300
f: 512.495.6399
www.scottdoug.com

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SCOTT
DOUGLASS
McCONNICO

John Hicks
Direct Dial: 512.495.6310
jhicks@scottdoug.com

February 20, 2023

VIA E-MAIL: UIC_Permits@rrc.texas.gov
Mr. Sean Avitt, P.G.
Mr. Scott Rosenquist, P.E.
Injection-Storage Permits Unit
Railroad Commission of Texas
1701 N. Congress Avenue, 10th Floor
Austin, TX 78711

Re: **Response to Request for Additional Data**
Pinto Energy Ptrs - STG 1, LLC's Application for a Permit to Create, Operate, and Maintain an Underground Storage Facility (Form H-4); Stratton Ridge Field, Pinto Energy Ptrs – STG 1, LLC Lease (00000) Lease, Well Nos. 1, 2, 3, 10A, 10B, 10C, 10D, 11A, 11B, 11C, 11D, 13A, 13B, 13C, 13D, 14A, 14B, 14C, 14D, 15A, 15B, 15C, 15D, 16A, 16B, 16C, 16D, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30, Brazoria County, Texas, District 03; Application Tracking No. **55491**

Dear Sean and Scott:

Pinto Energy Ptrs STG 1, LLC ("PEP") submits the following proposed responses to Technical Permitting's letters dated January 11, 2023 and February 16, 2023 (second request).

1. **"Affected parties must be re-notified of the revised Form H-4, pursuant to Statewide Rules 95(e)(1) and 97(e)(1), due to larger values for some wells in items 20 and 21 as compared to original H-4."**

   Response:
   Please see enclosed PEP's Supplemental Certificate of Service confirming re-notification to the affected parties of the revised Form H-4, along with an example of the new mailout.

2. **"A draft permit is included with this RAD letter. The operator may include comments in response to the draft permit as part of the response to this RAD letter."**

   Response:
   Thank you for the opportunity to provide comments on the draft permit. PEP's comments at this time are as follows:

(1) The draft permit skips from Condition 4 to Condition 7. If not just a typographical error and there are actually different Conditions 5 and 6, please provide us with the text for those conditions.

(2) On Condition 16 of the draft permit, PEP requests the addition of the two underlined sentences in the proposed revision below, to clarify that the condition is not, in effect, a revocation of Rules 95(o)(5), 95(p)(2), 97(o)(2), or 97(p)(2):

> 16. An out-of-service or permanently deactivated hydrocarbon storage well will be considered "inactive," and subject to the Commission's inactive well requirements, including, but not limited to, Statewide Rule 14(b)(2), if the well meets the definition of an inactive well found in Statewide Rule 15(a)(6) and Texas Natural Resources Code § 89.002(a)(12). Notwithstanding the foregoing, the operator may request approval of alternative monitoring for an out-of-service or permanently deactivated hydrocarbon storage well under the provisions of Statewide Rule 95(o)(5), Statewide Rule 95(p)(2), Statewide Rule 97(o)(2), and/or Statewide Rule 97(p)(2). Any such approved alternative monitoring shall be considered "other permitted activity" under Texas Natural Resources Code § 89.002(a)(12).

Please do not hesitate to contact me or Olga Kobzar with any questions or if you need any additional information.

Best regards,



John Hicks
Olga Kobzar
Attorneys for Pinto Energy Ptrs – STG 1, LLC

Enclosure

c: Via email:
Sean Avitt (Sean.Avitt@rrc.texas.gov)
Scott Rosenquist (Scott.Rosenquist@rrc.texas.gov)
Tommy Soriero (tsoriero@cockrell.com)
Olga Kobzar
Luis Garcia

ENCLOSURE 1

PINTO ENERGY PTRS STG 1 LLC's

SUPPLEMENTAL CERTIFICATE OF SERVICE

FOR REVISED FORM H-4

SUPPLEMENTAL CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the Application of Pinto Energy Ptrs – Stg 1, LLC for a Permit to Create, Operate, and Maintain a Brine Mining and Underground Hydrocarbon Storage Facility (Form H-4 with Instructions) for the Pinto Energy Storage Lease, Stratton Ridge Field, Brazoria County, Texas, as revised and received by the Railroad Commission of Texas on January 3, 2023, were sent to each of the persons named below by depositing same in the United State Mail, postage thereon fully prepaid:

COUNTY CLERK ***VIA REGULAR MAIL***

JOYCE HUDMAN
BRAZORIA COUNTY CLERK
111 E. LOCUST STREET, SUITE 200
ANGLETON, TX. 77515

OPERATORS IN STRATTON RIDGE ***VIA CERTIFIED AND REGULAR MAIL***

THE DOW CHEMICAL COMPANY
2301 BRAZOSPORT BLVD
SALT DOME OOERATIONS BLDG S 201
FREEPORT, TX 77541-3257

INEOS USA
CHOCOLATE BAYOU PLANT
P O BOX 1488
ALVIN, TX 77512-1488

INEOS CHOCOLATE BAYOU P/L, LLC
P O BOX 1488
ALVIN, TX 77512-1488

KINDER MORGAN TEJAS PIPELINE, LLC
1001 LOUISIANA STREET, STE 1000
HOUSTON, TX 77002

FREEPORT LNG DEVELOPMENT, LP
333 CLAY STREET, STE 5050
HOUSTON, TX 77002

SURFACE OWNERS ***VIA CERTIFIED AND REGULAR MAIL***

PINTO ENERGY PTRS - STG, LLC
3737 BUFFALO SPEEDWAY STE 1100
HOUSTON, TX 77098

HARVEST FOR THE HUNGRY
2001 HOLCOMBE BLVD #3305
HOUSTON, TX 77030-4232

63 PROPERTIES, LLC
PO BOX 3487
FREEPORT, TX 77542-1687

SHINTECH INC
3 GREENWAY PLZ STE 1150
HOUSTON, TX 77046-0325

BRAZORIA COUNTY MODELERS ASSN C/O ERIK VALDEZ
140 BRAZOSPORT BLVD N
CLUTE, TX 77531-3702

THE DOW CHEMICAL COMPANY
C/O TAX DEPT TXINN APB FLOOR 4A 332 SH 332 E
LAKE JACKSON, TX 77566

MINERAL OWNERS ***VIA CERTIFIED AND REGULAR MAIL***

COCKRELL INVESTMENT PARTNERS
3737 BUFFALO SPEEDWAY, SUITE 1100
HOUSTON, TEXAS 77098

FREEPORT LNG
333 CLAY ST # 5050
HOUSTON, TX 77002

HARVEST FOR THE HUNGRY
C/O DAVE HUANG
2001 HOLCOMBE BLVD #3305
HOUSTON, TX 77030-4232

CHEVRON
C/O CHEVRON SERVICES TAX DEPARTMENT
PO BOX 285
HOUSTON, TX 77001-0285

THE DOW CHEMICAL COMPANY
2301 N BRAZOSPORT BLVD
FREEPORT, TX 77541

BP AMERICA PRODUCTION CO
502 WESTLAKE PARK BLVD
HOUSTON, TX 77079

ELAINE S WHITE TRUST
2110 RIVER OAKS BLVD.
HOUSTON TX 77019

FROST 4 INTERESTS LTD LLP
REVOCABLE TRUST
2110 RIVER OAKS BLVD.
HOUSTON TX 77019

FROST MINERAL TRUST
C/O KANALY TRUST CO
PO BOX 13636
ARLINGTON, TX 76094-0636

FROST PROPERTIES LTD
TRUST OPERATIONS
AMEGY BANK TRUSTEE
P O BOX 27767
HOUSTON, TX 77227-7767

DINO DUE
206 BIRDSALL ST
HOUSTON, TX 77007-8108

FROST FAMILY I LTD
5004 CEDAR ST
BELLAIRE, TX 77401-4009

MAGNOLIA PETROLEUM COMPANY
3811 TURTLE CREEK BLVD, SUITE 1900
DALLAS, TEXAS 75219-3811

THE ALLAR COMPANY
735 ELM ST
GRAHAM, TX 76450

Done this 6th day of February 2023.

Thomas F. Soriero, Jr
Pinto Energy Ptrs – Stg 1, LLC

Pinto Energy Partners

February 3, 2023

Cockrell Investment Partners
3737 Buffalo Speedway, Suite 1100
Houston, TX
77098

Re: Pinto Energy Ptrs – STG 1 LLC Application for a Permit to Create, Operate, and Maintain a Brine Mining and Underground Hydrocarbon Storage Facility, Stratton Ridge Salt Dome, Brazoria County, Texas.

Dear Cockrell Investment Partners:

Enclosed please find a copy of the revised Form H-4 (front and back) filed by Pinto Energy Ptrs – STG 1 LLC to obtain a permit from the Railroad Commission of Texas to create, operate, and maintain a brine mining and underground hydrocarbon storage facility in the Stratton Ridge Salt Dome in Brazoria County. The hydrocarbon storage caverns will be located approximately 3.5 miles east of Clute, Texas within a depth interval of 2250 to 9000 feet. This revised application is for the same facility as the prior notice I sent you in July 2022, except that it has revised figures in columns 20 and 21 on the Form H-4 enclosed.

Requests for more information may be made to:

Injection – Storage Permits and Support
Oil and Gas Division
Railroad Commission of Texas
P.O. Box 12967
Austin, Texas 78711

If you have any questions, please do not hesitate to contact me at the number below.

Sincerely yours,

Thomas (Tommy) F. Soriero Jr.
Managing Director
Pinto Energy Partners L.P.
713-209-7553

3737 Buffalo Speedway
Suite 1100
Houston, TX 77098
713.209.7500

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

Return To:
DIRECTOR, Underground Injection Control
Oil and Gas Division
Railroad Commission of Texas
Capitol Station-P.O. Drawer 12967
Austin, Texas 78711

Form H-4
4/82

APPLICATION TO CREATE, OPERATE AND MAINTAIN
AN UNDERGROUND HYDROCARBON STORAGE FACILITY

1. Operator Name: Pinto Energy Ptrs - STG 1, LLC
2. Operator No: 665753
3. Address (Street, City, State and Zip Code): 3737 Buffalo Speedway, Suite 1100, Houston, Texas 77098
4. RRC Dist: 03
5. Lease Name(s), if applicable: Pinto Energy Ptrs - STG 1, LLC Lease
6a. Oil Lease No(s), if assigned: NA
6b. Gas ID No(s), if assigned:
7. Field Name: Stratton Ridge
8. RRC Field No., if assigned: 86526001
9. County: Brazoria
10. General Location: This facility will be 3 miles in a East direction from Clute (nearest post office or town.)
11. [X] New Project [ ] Expansion Initial Authority Dated _____ by Special Order No. _____
12. Type of Structure: [X] domal salt [ ] bedded salt
13. Depth to Top of Caprock (ft): Varies: -1350 to -3000 MSL
14. Depth to Top of Salt (ft): Varies: -950 to -2600 MSL
15. Current Number of Cavities in Project: None
16. Number of Cavities in this Application: 20

17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines	19. Size and Capacity When Fully Leached			20. Injection Rate daily (bbls)		21. Injection Pressure daily (psig)	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	avg.	max.	avg.	max.

SEE ATTACHED TABLE OF WELLS

22. List Underground Hydrocarbon Storage Facilities within One Mile of the Proposed Facility.

1) Dow Chemical, The (227525) - Dow Fee (14753), Stevens Tract (11287), Brock (11376) Leases
2) Freeport LNG Development, L.P. (285141)- FLNG Gas Storage (25217) Lease
3) Ineos USA, LLC (424191) - Amoco Chemicals Company (10375) Lease
4) Ineos Chocolate Bayou P/L (424192) - Amoco Chemical Corporation (15713) Lease
5) Kinder Morgan Tejas Pipeline (463338) - Tejas Ship Channel Company (21487) Lease

CERTIFICATE

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature

Thomas F Soriero Jr. — Name of Person (type or print)

Managing Director — Title

Telephone 713-209-7553 (Area Code / Number) Date July 25, 2022

FOR RRC USE ONLY

APPLICANT MUST COMPLY WITH THE INSTRUCTIONS ON REVERSE SIDE (OVER)

INSTRUCTIONS (H-4)

1. File the original application, including all attachments, with the Director of Underground Injection Control,P.O. Drawer 12967, Capitol Station, Austin, Texas 78711. File one copy of the application and its attachments with the appropriate District Office.

2. Attach a map with surveys marked showing the location and depth of all wells of public record within one-quarter (¼) mile radius of each facility well and areal limits of each storage cavity. For those wells which penetrate the top of the caprock, attach a tabulation of the wells showing the dates the wells were drilled and the present status of the wells. Attach plugging records for abandoned wells. If any nearby facilities include storage cavities that extend within one-quarter (¼) mile of the proposed facility, map and identify those facilities.

3. Describe the geology of the site. Include, for all zones penetrated by the storage well, the geological formation name, lithologic description, thickness, and any faults or fractures. Provide geologic cross sections drawn perpendicular to each other and extending a half mile beyond the limits of the storage cavities. Attach a copy of the electrical logs and other data used in drawing cross sections.

4. Outline step by step well completion procedures, including logging and casing testing. Describe each storage cavity well completion by diagrammatic sketch. Attach a tabulation of the casing and cementing program for each cavity well, including information on the type, size, weight, grade, and setting depth of all casing strings, number and location of centralizers, cementing technique, type and volume of cement, cement additives, and gel.

5. Describe the cavity development process, including the composition of displacement fluid, injection rates during cavity creation, cavity-boundary monitoring, method of circulation, and use of blanket liquids.

6. Attach a list of the type and composition of the liquids to be stored in each cavity.

7. Describe abandonment procedures and provide diagrammatic sketches for plugging of facility wells. State composition of the fluid to be used to fill cavities.

8. Attach a letter from the Texas Department of Water Resources, P.O. Box 13087, Capitol Station, Austin Texas 78711, stating the depth to which usable-quality ground water occurs in the area of the proposed facility.

9. (a) Attach a plat of leases or owned properties showing the proposed areal limits of the proposed storage cavity facility and the ownership of property or leases adjacent to the proposed facility.

   (b)(1) Send copies of the application, including both sides of the form, to the surface owners located over the facility and to adjacent offset operators or leaseholders. Attach a signed statement indicating the date the copies of the application were mailed or delivered and the names and addresses of the persons to whom copies were sent.

   (2) Attach an affidavit of publication signed by the publisher that notice of the application has been published for three consecutive days in a newspaper of general circulation for the county where the facility will be located. Notice instructions and forms may be obtained from the Commission's Austin Office or the District Offices.

   (c) A public hearing will be held for all new storage facilities after the Commission provides notice of the hearing to all persons listed pursuant to Section 9(b) (1) above. No public hearing will be held on applications for expansions of existing facilities unless a protest is received requesting a public hearing. Any such request for a public hearing shall be in writing and contain: (1) the name, mailing address, and phone number of the person making the request; and (2) a brief description of how the protestant would be adversly affected by the granting of the application. If the Commission determines that a valid protest has been received, or that a public hearing would be in the public interest, a hearing will be held after the issuance of proper and timely notice of the hearing by the Commission. If no protest is received within fifteen (15) days of the date of publication or receipt in Austin of the application, the application may be processed administratively.

Table of Wells - Revised 12.29.2022

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC FORM H-4: TABLE OF WELLS								
17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls) / (mmcf)		daily (psig)	
					avg.	max.	avg.	max.
1 / 1	5,550' FEL & 5,238' FSL	3,750	9,000	12,000	250 mmcf	767 mmcf	1,500	2,975
2 / 2	4,506' FEL & 5,180' FSL	3,750	9,000	12,000	250 mmcf	767 mmcf	1,500	2,975
3 / 3	3,681' FEL & 4,581' FSL	3,750	9,000	12,000	250 mmcf	767 mmcf	1,500	2,975
10 / 10A	8,982' FEL & 4,279' FSL	2,250	9,000	24,000	100,000	201,600	400	997
10 / 10B	8,951' FEL & 4,269' FSL	2,250	9,000	Same as 10A	50,000	115,200	400	997
10 / 10C	8,940' FEL & 4,236' FSL	2,250	9,000	Same as 10A	500,000	1,152,000	400	997
10 / 10D	8,972' FEL & 4,247' FSL	2,250	9,000	Same as 10A	50,000	115,200	400	997
11 / 11A	8,017' FEL & 4,285' FSL	2,250	9,000	24,000	100,000	201,600	400	997
11 / 11B	8,002' FEL & 4,255' FSL	2,250	9,000	Same as 11A	50,000	115,200	400	997
11 / 11C	8,017' FEL & 4,225' FSL	2,250	9,000	Same as 11A	500,000	1,152,000	400	997
11 / 11D	8,032' FEL & 4,255' FSL	2,250	9,000	Same as 11A	50,000	115,200	400	997
13 / 13A	8,976' FEL & 3,276' FSL	2,250	9,000	24,000	100,000	201,600	400	997
13 / 13B	8,946' FEL & 3,292' FSL	2,250	9,000	Same as 13A	50,000	115,200	400	997
13 / 13C	8,916' FEL & 3,277' FSL	2,250	9,000	Same as 13A	500,000	1,152,000	400	997
13 / 13D	8,946' FEL & 3,262' FSL	2,250	9,000	Same as 13A	50,000	115,200	400	997
14 / 14A	8,010' FEL & 3,283' FSL	2,250	9,000	24,000	100,000	201,600	400	997
14 / 14B	7,995' FEL & 3,253' FSL	2,250	9,000	Same as 14A	50,000	115,200	400	997
14 / 14C	8,010' FEL & 3,223' FSL	2,250	9,000	Same as 14A	500,000	1,152,000	400	997
14 / 14D	8,025' FEL & 3,253' FSL	2,250	9,000	Same as 14A	50,000	115,200	400	997
15 / 15A	8,969' FEL & 2,274' FSL	2,250	9,000	24,000	100,000	201,600	400	997
15 / 15B	8,958' FEL & 2,317' FSL	2,250	9,000	Same as 15A	50,000	115,200	400	997
15 / 15C	8,927' FEL & 2,317' FSL	2,250	9,000	Same as 15A	500,000	1,152,000	400	997
15 / 15D	8,937' FEL & 2,285' FSL	2,250	9,000	Same as 15A	50,000	115,200	400	997
16 / 16A	8,000' FEL & 2,281' FSL	2,250	9,000	24,000	100,000	201,600	400	997
16 / 16B	8,019' FEL & 2,311' FSL	2,250	9,000	Same as 16A	50,000	115,200	400	997
16 / 16C	8,004' FEL & 2,341' FSL	2,250	9,000	Same as 16A	500,000	1,152,000	400	997
16 / 16D	7,989' FEL & 2,311' FSL	2,250	9,000	Same as 16A	50,000	115,200	400	997
20	7,246' FEL & 5,526' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
21	7,245' FEL & 5,376' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
22	7,244' FEL & 5,226' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
23	7,243' FEL & 5,076' FSL	2,250	4,400	100	12,000	51,500	1,100	1,550
24	7,242' FEL & 4,926' FSL	2,250	4,000	100	12,000	51,500	1,100	1,550
25	7,045' FEL & 5,477' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550

Table of Wells - Revised 12.29.2022

APPLICATION OF PINTO ENERGY PTRS - STG 1, LLC FORM H-4: TABLE OF WELLS								
17. Cavity Name and Well No.	18. Location (Sec., Blk., Survey) Distance from Survey Lines [Note: All Wells Located in J. E. Groce Survey, A-66]	19. Size and Capacity When Fully Leached			20. Injection Rate		21. Injection Pressure	
		Top of Cavity (ft)	Bottom of Cavity (ft)	Capacity (thousand bbls)	daily (bbls) / (mmcf)		daily (psig)	
					avg.	max.	avg.	max.
26	7,044' FEL & 5,278' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
27	7,043' FEL & 5,078' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
28	7,041' FEL & 4,877' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
29	6,843' FEL & 5,179' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550
30	6,842' FEL & 4,979' FSL	2,250	4,000	200	12,000	51,500	1,100	1,550

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Magnolia Petroleum Company
3811 Turtle Creek Blvd, Suite 1900
Dallas, TX 75219-3811



9590 9402 7533 2098 4736 05

2. Article Number *(Transfer from service label)*

7020 1290 0000 6698 8176

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

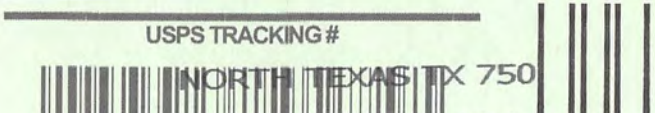
☐ Agent
☐ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ ed Mail
- ☐ d Mail Restricted Delivery
- $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery



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T.S.

United States Postal Service

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Cockrell Interests LLC
3737 Buffalo Speedway, Suite 1100
Houston, Texas 77098