



DEPARTMENT OF THE ARMY
CAMP STANLEY STORAGE ACTIVITY, MCAPP
25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

November 17, 2017

U-013-18

SUBJECT: Technical NOD Information Request – Request to Modify Authorization and Registration of Class V Injection Wells at Camp Stanley Storage Activity, Boerne, Texas, TCEQ Authorization No. 5X2600645; IHWCA#69026; CN602728206/RN100662840

Texas Commission on Environmental Quality
Attn: Mr. Bryan Smith
UIC Permits Team
Radioactive Materials Division
PO Box 13087 (MC-233)
Austin, Texas 78711-3087

Dear Mr. Smith:

The Camp Stanley Storage Activity (CSSA), McAlester Army Ammunition Plant, U.S. Army Field Support Command, Army Materiel Command, U.S. Army, is submitting this letter in response to the technical NOD email received by our subcontractor (Parsons) on November 9, 2017. This letter with enclosures provides additional information for the clarification and evaluation of the modification request for the Class V Authorization No. 5X2600645, dated October 6, 2017. The enclosed information includes well completion logs for wells IIW-01 through IIW-04, and VEW-13 through VEW-33; an updated Figure B.1 (showing well CS-AOC65-PZ-03 and -04 locations); and a detailed description of injection activities from 2012 through 2014 (Table 1). Activities associated with this Authorization are part of the In Situ Chemical Oxidation (ISCO) corrective measure at Area of Concern 65 (AOC-65) located at CSSA in Boerne, TX.

If you have any questions regarding the specific ISCO application activities at CSSA, please feel free to contact me at 210-295-7416 or Ken Rice, Parsons at 512-719-6050, ken.r.rice@parsons.com.

Sincerely,


Jason D. Shirley
Installation Manager

cc: Felicia Krantz, CSSA Environmental Manager
Greg Lyssy, USEPA Region 6
Julie Burdey, Parsons – Austin
Ken Rice, Parsons – Austin
File: 640149.110046.03000

Well Completion Logs

STATE OF TEXAS WELL REPORT for Tracking #322498

Owner:	U.S. Government	Owner Well #:	IIW01
Address:	25800 Ralph Fair Road Boerne , TX 78015	Grid #:	68-19-6
Well Location:	25800 Ralph Fair Road Boerne , TX 78015	Latitude:	29° 41' 11" N
Well County:	Bexar	Longitude:	098° 38' 02" W
Elevation:	No Data	GPS Brand Used:	Garmin

Type of Work:	New Well	Proposed Use:	Monitor
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Drilling Date: Started: **5/16/2013**
Completed: **5/16/2013**

Diameter of Hole: Diameter: **7.875 in From Surface To 125 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data: 1st Interval: **From 0 ft to 10 ft with 3 sxs cement (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Surface Pour**
Cemented By: **Geoprojects**
Distance to Septic Field or other Concentrated Contamination: **n/a ft**
Distance to Property Line: **n/a ft**
Method of Verification: **Owner Knowledge**
Approved by Variance: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **Neoprene packer at 11 feet.**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **No Data**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No Data**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: **Geoprojects International, Inc.**
8834 Circle Drive
Austin , TX 78736

Driller License Number: **58772**

Licensed Well Driller Signature: **Evan Schaefer**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #**322498**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
Surface to 1' Topsoil
1' - 34.5 Yellow, weathered Limestone with clay stringers
34.5' - 51' Grey Limestone with clay stringers
51' - 58' Yellow soft Limestone
58' - 125' Grey Limestone with clay stringers

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4-inch I.D., SDR17 PVC casing from surface to 10'

STATE OF TEXAS WELL REPORT for Tracking #322500

Owner:	U.S. Government	Owner Well #:	IIW02
Address:	25800 Ralph Fair Road Boerne , TX 78015	Grid #:	68-19-6
Well Location:	25800 Ralph Fair Road Boerne , TX 78015	Latitude:	29° 41' 13" N
Well County:	Bexar	Longitude:	098° 38' 08" W
Elevation:	No Data	GPS Brand Used:	Garmin

Type of Work:	New Well	Proposed Use:	Monitor
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Drilling Date: Started: **5/16/2013**
Completed: **5/16/2013**

Diameter of Hole: Diameter: **7.875 in From Surface To 117 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data: 1st Interval: **From 0 ft to 11 ft with 2 sxs cement (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Surface Pour**
Cemented By: **Geoprojects**
Distance to Septic Field or other Concentrated Contamination: **n/a ft**
Distance to Property Line: **n/a ft**
Method of Verification: **Owner Knowledge**
Approved by Variance: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **Neoprene packer at 10 feet.**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **Glen Rose**
Depth of Strata: **125 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: **Geoprojects International, Inc.**
8834 Circle Drive
Austin , TX 78736

Driller License Number: **58772**

Licensed Well Driller Signature: **Evan Schaefer**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

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P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description

Surface to 1' Topsoil

1' - 36' Yellow, weathered Limestone with clay stringers

36' - 53' Grey Limestone with Shale stringers

51' - 59' Yellow soft Limestone

59' - 125' Grey Limestone with clay stringers

Dia. New/Used Type Setting From/To

4-inch I.D., SDR17 PVC casing from surface to 11'

STATE OF TEXAS WELL REPORT for Tracking #322503

Owner:	U.S. Government	Owner Well #:	IIW03
Address:	25800 Ralph Fair Road Boerne , TX 78015	Grid #:	68-19-6
Well Location:	25800 Ralph Fair Road Boerne , TX 78015	Latitude:	29° 41' 16" N
Well County:	Bexar	Longitude:	098° 38' 08" W
Elevation:	No Data	GPS Brand Used:	Garmin
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Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: **5/15/2013**
Completed: **5/15/2013**

Diameter of Hole: Diameter: **7.875 in From Surface To 125 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data: 1st Interval: **From 0 ft to 11 ft with 2 sxs cement (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Surface Pour**
Cemented By: **Geoprojects**
Distance to Septic Field or other Concentrated Contamination: **n/a ft**
Distance to Property Line: **n/a ft**
Method of Verification: **Owner Knowledge**
Approved by Variance: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **Neoprene packer at 11 feet.**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **Glen Rose**
Depth of Strata: **125 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for

completion and resubmittal.

Company Information: **Geoprojects International, Inc.**
8834 Circle Drive
Austin , TX 78736

Driller License Number: **58772**

Licensed Well Driller Signature: **Evan Schaefer**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

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Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description

Surface to 3' Topsoil

3' - 34' Yellow, weathered Limestone with clay stringers

34' - 48' Grey Limestone with layered Clay

48' - 60' Yellow hard Limestone

60' - 82' Grey, soft Limestone with Clay stringers

82' - 90' White, soft Limestone

90' - 125' Yellow Limestone with Clay stringers

Dia. New/Used Type Setting From/To

4-inch I.D., SDR17 PVC casing from surface to 11'

STATE OF TEXAS WELL REPORT for Tracking #322506

Owner:	U.S. Government	Owner Well #:	IIW04
Address:	25800 Ralph Fair Road Boerne , TX 78015	Grid #:	68-19-6
Well Location:	25800 Ralph Fair Road Boerne , TX 78015	Latitude:	29° 40' 59" N
Well County:	Bexar	Longitude:	098° 37' 56" W
Elevation:	No Data	GPS Brand Used:	Garmin

Type of Work:	New Well	Proposed Use:	Monitor
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Drilling Date:	Started: 5/14/2013 Completed: 5/14/2013
Diameter of Hole:	Diameter: 7.875 in From Surface To 125 ft
Drilling Method:	Air Rotary
Borehole Completion:	Open Hole
Annular Seal Data:	1st Interval: From 0 ft to 11 ft with 2 sxs cement (#sacks and material) 2nd Interval: No Data 3rd Interval: No Data Method Used: Surface Pour Cemented By: Geoprojects Distance to Septic Field or other Concentrated Contamination: n/a ft Distance to Property Line: n/a ft Method of Verification: Owner Knowledge Approved by Variance: No Data
Surface Completion:	Alternative Procedure Used

Water Level:	Static level: No Data Artesian flow: No Data
Packers:	Neoprene packer at 11 feet.
Plugging Info:	Casing or Cement/Bentonite left in well: No Data
Type Of Pump:	No Data
Well Tests:	No Data

Water Quality:	Type of Water: Glen Rose Depth of Strata: 125 ft. Chemical Analysis Made: No Did the driller knowingly penetrate any strata which contained undesirable constituents: No
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Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for
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completion and resubmittal.

Company Information: **Geoprojects International, Inc.**
8834 Circle Drive
Austin , TX 78736

Driller License Number: **58772**

Licensed Well Driller Signature: **Evan Schaefer**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #**322506**) on your written request.

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(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

CASING, BLANK PIPE & WELL SCREEN DATA

From (ft) To (ft) Description
Surface to .5' Topsoil
.5' to 1.5' White Limestone
1.5' - 37' Yellow weathered Limestone with Clay stringers
37' - 44' Grey Limestone
44' - 58' Yellow hard Limestone
58' - 83' Grey soft Limestone with clay stringers
83' - 93' White soft Limestone
93' - 125' Yellow Limestone

Dia. New/Used Type Setting From/To
4-inch I.D., SDR17 PVC casing from surface to 11'

STATE OF TEXAS WELL REPORT for Tracking #27736

Owner:	U.S. GOVERNMENT	Owner Well #:	AOC65-VEW13-LGR
Address:	25800 RALPH FAIR RD. BOERNE , TX 78015	Grid #:	68-19-6
Well Location:	CAMP STANLEY STORAGE ACTIVITY BOERNE , TX 78015	Latitude:	29° 40' 59" N
Well County:	Bexar	Longitude:	098° 37' 52" W
Elevation:	No Data	GPS Brand Used:	GARMIN
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Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: **6/24/2002**
 Completed: **6/25/2002**

Diameter of Hole: Diameter: **8 in From Surface To 43.8 ft**

Drilling Method: **Air Rotary**

Borehole
Completion: **Straight Wall** Gravel Packed From: **24 ft to 40.5 ft**
 Gravel Pack Size: **4/10**

Annular Seal Data: 1st Interval: **From 2 ft to 24 ft with BENTONITE-8 (#sacks and material)**
 2nd Interval: **No Data**
 3rd Interval: **No Data**
 Method Used: **TREMIE**
 Cemented By: **JOSE LANDEROS**
 Distance to Septic Field or other Concentrated Contamination: **No Data**
 Distance to Property Line: **No Data**
 Method of Verification: **No Data**
 Approved by Variance: **No Data**

Surface
Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
 Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
 Depth of Strata: **No Data**
 Chemical Analysis Made: **No**
 Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company
Information: **GEOPROJECTS INTERNATIONAL, INC.**
 8834 CIRCLE DRIVE

AUSTIN , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **JOSE LANDEROS**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

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(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-35 UPPER GLEN ROSE LIMESTONE
35-43.8 LOWER GLEN ROSE LIMESTONE

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	NEW	SCH 40 PVC RISER	0-25
4	NEW	SCH 40 PVC SCREEN	25-40 .020

STATE OF TEXAS WELL REPORT for Tracking #27739

Owner:	U.S. GOVERNMENT	Owner Well #:	AOC65-VEW14-LGR
Address:	25800 RALPH FAIR RD. BOERNE , TX 78015	Grid #:	68-19-6
Well Location:	CAMP STANLEY STORAGE ACTIVITY BOERNE , TX 78015	Latitude:	29° 40' 58" N
Well County:	Bexar	Longitude:	098° 37' 52" W
Elevation:	No Data	GPS Brand Used:	GARMIN
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Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: **6/26/2002**
 Completed: **7/9/2002**

Diameter of Hole: Diameter: **8 in From Surface To 59.2 ft**

Drilling Method: **Air Rotary**

Borehole
Completion: **Straight Wall** Gravel Packed From: **39 ft to 59.2 ft**
 Gravel Pack Size: **4/10**

Annular Seal Data: 1st Interval: **From 3 ft to 39 ft with BENTONITE-14 (#sacks and material)**
 2nd Interval: **No Data**
 3rd Interval: **No Data**
 Method Used: **TREMIE**
 Cemented By: **JOSE LANDEROS**
 Distance to Septic Field or other Concentrated Contamination: **No Data**
 Distance to Property Line: **No Data**
 Method of Verification: **No Data**
 Approved by Variance: **No Data**

Surface
Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
 Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
 Depth of Strata: **No Data**
 Chemical Analysis Made: **No**
 Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company
Information: **GEOPROJECTS INTERNATIONAL, INC.**
 8834 CIRCLE DRIVE

AUSTIN , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **JOSE LANDEROS**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

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(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-35 UPPER GLEN ROSE LIMESTONE
35-59.2 LOWER GLEN ROSE LIMESTONE

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	NEW	SCH 40 PVC RISER	0-41
4	NEW	SCH 40 PVC SCREEN	41-59 .050
8	NEW	STEEL CASING	0-15

STATE OF TEXAS WELL REPORT for Tracking #27740

Owner: U.S. GOVERNMENT	Owner Well #: AOC65-VEW15-LGR
Address: 25800 RALPH FAIR RD. BOERNE , TX 78015	Grid #: 68-19-6
Well Location: CAMP STANLEY STORAGE ACTIVITY BOERNE , TX 78015	Latitude: 29° 41' 00" N
Well County: Bexar	Longitude: 098° 37' 52" W
Elevation: No Data	GPS Brand Used: GARMIN
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Type of Work: New Well	Proposed Use: Monitor

Drilling Date: Started: **8/6/2002**
Completed: **8/6/2002**

Diameter of Hole: Diameter: **8 in From Surface To 13 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall** Gravel Packed From: **3 ft to 13 ft**
Gravel Pack Size: **4/10**

Annular Seal Data: 1st Interval: **From 1 ft to 3 ft with BENTONITE-2 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **TREMIE**
Cemented By: **JOSE LANDEROS**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **GEOPROJECTS INTERNATIONAL, INC.**
8834 CIRCLE DRIVE

AUSTIN , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **JOSE LANDEROS**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

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P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-13 UPPER GLEN ROSE LIMESTONE

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	NEW	SCH 40 PVC RISER	0-5
4	NEW	SCH 40 PVC SCREEN	5-12.5 .050

STATE OF TEXAS WELL REPORT for Tracking #27742

Owner:	U.S. GOVERNMENT	Owner Well #:	AOC65-VEW16-LGR
Address:	25800 RALPH FAIR RD. BOERNE , TX 78015	Grid #:	68-19-6
Well Location:	CAMP STANLEY STORAGE ACTIVITY BOERNE , TX 78015	Latitude:	29° 40' 59" N
Well County:	Bexar	Longitude:	098° 37' 52" W
Elevation:	No Data	GPS Brand Used:	GARMIN
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Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: **8/5/2002**
 Completed: **8/6/2002**

Diameter of Hole: Diameter: **8 in From Surface To 41 ft**

Drilling Method: **Air Rotary**

Borehole **Straight Wall** Gravel Packed From: **13 ft to 41 ft**
 Completion: Gravel Pack Size: **4/10**

Annular Seal Data: 1st Interval: **From 0 ft to 11 ft with CEMENT-4 (#sacks and material)**
 2nd Interval: **From 11 ft to 13 ft with BENTONITE-2 (#sacks and material)**
 3rd Interval: **No Data**
 Method Used: **TREMIE**
 Cemented By: **JOSE LANDEROS**
 Distance to Septic Field or other Concentrated Contamination: **No Data**
 Distance to Property Line: **No Data**
 Method of Verification: **No Data**
 Approved by Variance: **No Data**

Surface **Alternative Procedure Used**
 Completion:

Water Level: Static level: **No Data**
 Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
 Depth of Strata: **No Data**
 Chemical Analysis Made: **No**
 Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company **GEOPROJECTS INTERNATIONAL, INC.**
 Information: **8834 CIRCLE DRIVE**

AUSTIN , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **JOSE LANDEROS**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Please include the report's Tracking number (Tracking #27742) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-35 UPPER GLEN ROSE LIMESTONE
35-41 LOWER GLEN ROSE LIMESTONE

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	NEW	SCH 40 PVC RISER	0-15
4	NEW	SCH 40 PVC SCREEN	15-40.5 .050

STATE OF TEXAS WELL REPORT for Tracking #27743

Owner: U.S. GOVERNMENT	Owner Well #: AOC65-VEW17-LGR
Address: 25800 RALPH FAIR RD. BOERNE , TX 78015	Grid #: 68-19-6
Well Location: CAMP STANLEY STORAGE ACTIVITY BOERNE , TX 78015	Latitude: 29° 40' 58" N
Well County: Bexar	Longitude: 098° 37' 52" W
Elevation: No Data	GPS Brand Used: GARMIN
<hr/>	
Type of Work: New Well	Proposed Use: Monitor

Drilling Date: Started: **8/24/2002**
Completed: **8/25/2002**

Diameter of Hole: Diameter: **8 in From Surface To 53.5 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall** Gravel Packed From: **20 ft to 53.5 ft**
Gravel Pack Size: **4/10**

Annular Seal Data: 1st Interval: **From 1 ft to 18 ft with CEMENT-7 (#sacks and material)**
2nd Interval: **From 18 ft to 20 ft with BENTONITE-2 (#sacks and material)**
3rd Interval: **No Data**
Method Used: **TREMIE**
Cemented By: **JOSE LANDEROS**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **GEOPROJECTS INTERNATIONAL, INC.
8834 CIRCLE DRIVE**

AUSTIN , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **JOSE LANDEROS**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-35 UPPER GLEN ROSE LIMESTONE
35-53.5 LOWER GLEN ROSE LIMESTONE

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	NEW	SCH 40 PVC RISER	0-22
4	NEW	SCH 40 PVC SCREEN	22-52 .050

STATE OF TEXAS WELL REPORT for Tracking #27744

Owner:	U.S. GOVERNMENT	Owner Well #:	AOC65-VEW18-LGR
Address:	25800 RALPH FAIR RD. BOERNE , TX 78015	Grid #:	68-19-6
Well Location:	CAMP STANLEY STORAGE ACTIVITY BOERNE , TX 78015	Latitude:	29° 40' 58" N
Well County:	Bexar	Longitude:	098° 37' 52" W
Elevation:	No Data	GPS Brand Used:	GARMIN
<hr/>			
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: **8/21/2002**
 Completed: **8/22/2002**

Diameter of Hole: Diameter: **8 in From Surface To 79 ft**

Drilling Method: **Air Rotary**

Borehole
Completion: **Straight Wall** Gravel Packed From: **15 ft to 56 ft**
 Gravel Pack Size: **4/10**

Annular Seal Data: 1st Interval: **From 13 ft to 15 ft with BENTONITE-4 (#sacks and material)**
 2nd Interval: **No Data**
 3rd Interval: **No Data**
 Method Used: **TREMIE**
 Cemented By: **JOSE LANDEROS**
 Distance to Septic Field or other Concentrated Contamination: **No Data**
 Distance to Property Line: **No Data**
 Method of Verification: **No Data**
 Approved by Variance: **No Data**

Surface
Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
 Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
 Depth of Strata: **No Data**
 Chemical Analysis Made: **No**
 Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company
Information: **GEOPROJECTS INTERNATIONAL, INC.**
 8834 CIRCLE DRIVE

AUSTIN , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **JOSE LANDEROS**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-36 UPPER GLEN ROSE LIMESTONE
36-79 LOWER GLEN ROSE LIMESTONE

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	NEW	SCH 40 PVC RISER	0-16
4	NEW	SCH 40 PVC SCREEN	16-56 .050

STATE OF TEXAS WELL REPORT for Tracking #27745

Owner: U.S. GOVERNMENT	Owner Well #: AOC65-VEW19-LGR
Address: 25800 RALPH FAIR RD. BOERNE , TX 78015	Grid #: 68-19-6
Well Location: CAMP STANLEY STORAGE ACTIVITY BOERNE , TX 78015	Latitude: 29° 40' 59" N
Well County: Bexar	Longitude: 098° 37' 52" W
Elevation: No Data	GPS Brand Used: GARMIN
<hr/>	
Type of Work: New Well	Proposed Use: Monitor

Drilling Date: Started: **8/9/2002**
Completed: **8/9/2002**

Diameter of Hole: Diameter: **8 in From Surface To 26 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall** Gravel Packed From: **3 ft to 26 ft**
Gravel Pack Size: **4/10**

Annular Seal Data: 1st Interval: **From 1 ft to 3 ft with BENTONITE-3 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **TREMIE**
Cemented By: **JOSE LANDEROS**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **GEOPROJECTS INTERNATIONAL, INC.**
8834 CIRCLE DRIVE

AUSTIN , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **JOSE LANDEROS**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-26 UPPER GLEN ROSE LIMESTONE

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	NEW	SCH 40 PVC RISER	0-5
4	NEW	SCH 40 PVC SCREEN	5-25.3 .050

State Well Reports are unavailable for the following wells:

VEW-20

VEW-21

VEW-22

VEW-23

VEW-24

VEW-25

VEW-26

VEW-27

VEW-28A

VEW-28B

VEW 20 - 28a/b Well Statistics

VEW		Well Materials Installation Date	Screen Interval (fbgs)	Sand Interval (fbgs)	Bentonite Seal (fbgs)	Grout (fbgs)
VEW 20		4/10/07	10 - 25	8 - 27	5 - 8	2 - 5
VEW 21		4/19/07	12 - 27	10 - 27	8 - 10	2 - 8
VEW 22		4/9/07	25 - 50	23 - 51	20 - 23	2 - 20
VEW 23		4/10/07	6 - 21	4 - 21	2 - 4	n/a
VEW 24		4/11/07	25 - 50	23 - 50	20 - 23	2 - 20
VEW 25		4/11/07	6 - 21	4 - 21	2 - 4	n/a
VEW 26		4/12/07	25 - 50	23 - 50	20 - 23	2 - 20
VEW 27		4/13/07	6 - 21	4 - 21	2 - 4	n/a
Nested	VEW 28a	4/26/07	80 - 120	78 - 120	75 - 78	2 - 75
	VEW 28b	4/27/07	139.3 - 179.3	137.3 - 179.3	135.3 - 137.3	120 - 135.3

VEWs 20 - 27 are 4" diameter, with Schedule 40 PVC risers and screens. Screens are 0.020-inch factory slotted.

VEWs 28a and 28b are 2" diameter, with Schedule 40 PVC risers and screens. Screens are 0.020-inch factory slotted.

STATE OF TEXAS WELL REPORT for Tracking #264901

Owner: Camp Stanley Storage Activity	Owner Well #: VEW-29
Address: 25800 Ralph Fair Road Boerne , TX 78015	Grid #: 68-19-6
Well Location: 25800 RALPH FAIR ROAD Boerne , TX 78015	Latitude: 29° 40' 59" N
Well County: Bexar	Longitude: 098° 37' 52" W
Elevation: 1220 ft.	GPS Brand Used: Garmin
<hr/>	
Type of Work: New Well	Proposed Use: Monitor

Drilling Date: Started: **5/4/2011**
Completed: **5/4/2011**

Diameter of Hole: Diameter: **7-7/8 in From Surface To 45 ft**

Drilling Method: **Air Rotary**

Borehole Completion: Gravel Packed From: **4.5 ft to 42 ft**
Gravel Pack Size: **8/16**

Annular Seal Data: 1st Interval: **From 0 ft to 3 ft with 1-Cement (#sacks and material)**
2nd Interval: **From 3 ft to 4.5 ft with 1-Bentonite (#sacks and material)**
3rd Interval: **From 42 ft to 45 ft with 2-Bentonite (#sacks and material)**
Method Used: **Poured from Surface**
Cemented By: **Evan Schaefer TDLR # 58772**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **Geoprojects International, Inc.**
8834 Circle Drive

Austin , TX 78736

Driller License Number: **2525**

Licensed Well Driller Signature: **Lee Gebbert**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0 to 35 Limestone, Upper Glen Rose Formation
35 to 45 Limestone, Lower Glen Rose Formation

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	New	SCH 40 PVC Flush Joint Threaded (FJT) Casing	set from 0 to 5
4	New	SCH 40 PVC (FJT) Mill Slot Screen	set from 5 to 40 with 0.040-inch slot

STATE OF TEXAS WELL REPORT for Tracking #264904

Owner: Camp Stanley Storage Activity	Owner Well #: VEW-30
Address: 25800 Ralph Fair Road Boerne , TX 78015	Grid #: 68-19-6
Well Location: 25800 RALPH FAIR ROAD Boerne , TX 78015	Latitude: 29° 40' 59" N
Well County: Bexar	Longitude: 098° 37' 52" W
Elevation: 1220 ft.	GPS Brand Used: Garmin
<hr/>	
Type of Work: New Well	Proposed Use: Monitor

Drilling Date: Started: **5/5/2011**
 Completed: **5/5/2011**

Diameter of Hole: Diameter: **7-7/8 in From Surface To 30 ft**

Drilling Method: **Air Rotary**

Borehole Gravel Packed From: **4.5 ft to 30 ft**
 Completion: Gravel Pack Size: **8/16**

Annular Seal Data: 1st Interval: **From 0 ft to 3 ft with 1-Cement (#sacks and material)**
 2nd Interval: **From 3 ft to 4.5 ft with 1-Bentonite (#sacks and material)**
 3rd Interval: **No Data**
 Method Used: **Poured from Surface**
 Cemented By: **Evan Schaefer TDLR # 58772**
 Distance to Septic Field or other Concentrated Contamination: **No Data**
 Distance to Property Line: **No Data**
 Method of Verification: **No Data**
 Approved by Variance: **No Data**

Surface **Surface Slab Installed**
 Completion:

Water Level: Static level: **No Data**
 Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
 Depth of Strata: **No Data**
 Chemical Analysis Made: **No**
 Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company **Geoprojects International, Inc.**
 Information: **8834 Circle Drive**

Austin , TX 78736

Driller License Number: **2525**

Licensed Well Driller Signature: **Lee Gebbert**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0 to 30 Limestone, Upper Glen Rose Formation

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	New	SCH 40 PVC Flush Joint Threaded (FJT) Casing	set from 0 to 5
4	New	SCH 40 PVC (FJT) Mill Slot Screen	set from 5 to 25 with 0.040-inch slot

STATE OF TEXAS WELL REPORT for Tracking #264906

Owner:	Camp Stanley Storage Activity	Owner Well #:	VEW-31
Address:	25800 Ralph Fair Road Boerne , TX 78015	Grid #:	68-19-6
Well Location:	25800 RALPH FAIR ROAD Boerne , TX 78015	Latitude:	29° 41' 00" N
Well County:	Bexar	Longitude:	098° 37' 52" W
Elevation:	1220 ft.	GPS Brand Used:	Garmin
<hr/>			
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: **5/6/2011**
 Completed: **5/6/2011**

Diameter of Hole: Diameter: **7-7/8 in From Surface To 45 ft**

Drilling Method: **Air Rotary**

Borehole Gravel Packed From: **4.5 ft to 42 ft**
 Completion: Gravel Pack Size: **8/16**

Annular Seal Data: 1st Interval: **From 0 ft to 3 ft with 1-Cement (#sacks and material)**
 2nd Interval: **From 3 ft to 4.5 ft with 1-Bentonite (#sacks and material)**
 3rd Interval: **From 42 ft to 45 ft with 2-Bentonite (#sacks and material)**
 Method Used: **Poured from Surface**
 Cemented By: **Evan Schaefer TDLR # 58772**
 Distance to Septic Field or other Concentrated Contamination: **No Data**
 Distance to Property Line: **No Data**
 Method of Verification: **No Data**
 Approved by Variance: **No Data**

Surface **Surface Slab Installed**
 Completion:

Water Level: Static level: **No Data**
 Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
 Depth of Strata: **No Data**
 Chemical Analysis Made: **No**
 Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company **Geoprojects International, Inc.**
 Information: **8834 Circle Drive**

Austin , TX 78736

Driller License Number: **2525**

Licensed Well Driller Signature: **Lee Gebbert**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0 to 37 Limestone, Upper Glen Rose Formation
37 to 45 Limestone, Upper Glen Rose Formation

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	New	SCH 40 PVC Flush Joint Threaded (FJT) Casing	set from 0 to 5
4	New	SCH 40 PVC (FJT) Mill Slot Screen	set from 5 to 40 with 0.040-inch slot

STATE OF TEXAS WELL REPORT for Tracking #265243

Owner: Camp Stanley Storage Activity	Owner Well #: VEW-32
Address: 25800 Ralph Fair Road Boerne , TX 78015	Grid #: 68-19-6
Well Location: 25800 Ralph Fair Road Boerne , TX 78015	Latitude: 29° 40' 59" N
Well County: Bexar	Longitude: 098° 37' 52" W
Elevation: 1220 ft.	GPS Brand Used: Garmin
<hr/>	
Type of Work: New Well	Proposed Use: Monitor

Drilling Date: Started: **4/28/2011**
Completed: **4/28/2011**

Diameter of Hole: Diameter: **8 in From Surface To 28 ft**

Drilling Method: **Air Rotary**

Borehole Completion: Gravel Packed From: **4.5 ft to 28 ft**
Gravel Pack Size: **8/16**

Annular Seal Data: 1st Interval: **From 0 ft to 3 ft with 1-Cement (#sacks and material)**
2nd Interval: **From 3 ft to 4.5 ft with 1-Bent. Grout (#sacks and material)**
3rd Interval: **No Data**
Method Used: **Poured from Surface**
Cemented By: **Evan Schaefer TDLR # 58772**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information: **Geoprojects International, Inc.**
8834 Circle Drive

Austin , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **Jose Landeros**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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P.O. Box 12157
Austin, TX 78711
(512) 463-7880**

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-28 Limestone, Upper Glen Rose Formation

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	New	SCh 40 PVC Flush Joint Threaded (FJT) Casing	set from 0 to 5
4	New	SCh 40 PVC (FJT) Mill Slotted Screen	set from 5 to 25 with 0.040-inch slot

STATE OF TEXAS WELL REPORT for Tracking #265244

Owner:	Camp Stanley Storage Activity	Owner Well #:	VEW-33
Address:	25800 Ralph Fair Road Boerne , TX 78015	Grid #:	68-19-6
Well Location:	25800 Ralph Fair Road Boerne , TX 78015	Latitude:	29° 40' 58" N
Well County:	Bexar	Longitude:	098° 37' 52" W
Elevation:	1220 ft.	GPS Brand Used:	Garmin
<hr/>			
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Date: Started: **5/4/2011**
 Completed: **5/4/2011**

Diameter of Hole: Diameter: **8 in From Surface To 32 ft**

Drilling Method: **Air Rotary**

Borehole
Completion: Gravel Packed From: **4.5 ft to 32 ft**
 Gravel Pack Size: **8/16**

Annular Seal Data: 1st Interval: **From 0 ft to 3 ft with 1-Cement (#sacks and material)**
 2nd Interval: **From 3 ft to 4.5 ft with 1-Bent. Grout (#sacks and material)**
 3rd Interval: **No Data**
 Method Used: **Poured from Surface**
 Cemented By: **Evan Schaefer TDLR # 58772**
 Distance to Septic Field or other Concentrated Contamination: **No Data**
 Distance to Property Line: **No Data**
 Method of Verification: **No Data**
 Approved by Variance: **No Data**

Surface
Completion: **Surface Slab Installed**

Water Level: Static level: **No Data**
 Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

Water Quality: Type of Water: **No Data**
 Depth of Strata: **No Data**
 Chemical Analysis Made: **No**
 Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company
Information: **Geoprojects International, Inc.**
 8834 Circle Drive

Austin , TX 78736

Driller License Number: **2551**

Licensed Well Driller Signature: **Jose Landeros**

Registered Driller Apprentice Signature: **No Data**

Apprentice Registration Number: **No Data**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #265244) on your written request.

**Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880**

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-32 Limestone, Upper Glen Rose Formation

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4	New	SCh 40 PVC Flush Joint Threaded (FJT) Casing	set from 0 to 5
4	New	SCh 40 PVC (FJT) Mill Slotted Screen	set from 5 to 25 with 0.040-inch slot

Figure B.1



Figure B.1

AOC-65 Proposed ISCO
Wells and Infiltration Cells
Camp Stanley Storage Activity

PARSONS



0 50 100
Feet

- Proposed ISCO Injection Wells
- Existing ISCO Injection Wells
- Existing ISCO Infiltration Galleries

Table 1
Injection Summary Table

Table 1**Camp Stanley Storage Activity AOC-65 ISCO Injection Summary**

Phase I through Phase V Injections
Injections Performed: May 2012 - November 2017

May 2012 - Ancillary Phase I Injections **216 ft³ Sulfur Hexafluoride (SF₆)**

Injection Location	Gaseous SF ₆ (ft ³)
SIW-01	46
Trench - Middle Zone	170

August 2012 - Phase I Injections **19,800 lbs Sodium Persulfate**

Oxidant - 10,500 gallons 20% persulfate solution

Activator - 4,500 gallons 25% sodium hydroxide

Injection Location	Persulfate Solution (gal)	Activator (gal)
Trench - Upper Zone	1,500	640
Trench - Middle Zone	5,400	2,310
Trench - Lower Zone	3,500	1,500
SIW-01	100	50

May 2013 - Phase II Injections **44,000 lbs Sodium Persulfate**

Oxidant - 25,365 gallons 20% persulfate solution

Activator - 8,500 gallons 25% sodium hydroxide

Injection Location	Persulfate Solution (gal)	Activator (gal)
Trench - Upper Zone	5,407	1,770
Trench - Middle Zone	10,770	3,520
Trench - Lower Zone	8,088	2,645
IIW-01	250	80
IIW-02	250	80
IIW-03	250	80
IIW-04	250	80
SIW-01	100	32

September - November 2014 -**Phase III Injections** **145,400 lbs Sodium Persulfate**

Oxidant - 76,265 gallons 20% persulfate solution

Activator - 27,000 gallons 25% sodium hydroxide

Injection Location	Persulfate Solution (gal)	Activator (gal)
Trench - Upper Zone	16,170	5,717
Trench - Middle Zone	32,340	11,433
Trench - Lower Zone	24,255	8,574
IIW-01	925	325
IIW-02	925	325
IIW-03	925	325
IIW-04	665	240
SIW-01	60	25

Table 1 (cont.)

Camp Stanley Storage Activity AOC-65 ISCO Injection Summary

Phase I through Phase V Injections
Injections Performed: May 2012 - November 2017

July 2015 - Ancillary Phase IV Injections	Dye Tracers
Injection Location	<1 lb powdered dye in water (gal)
VEW-15 - Eosine	1
VEW-32 - Fluorescein	1
VEW-27 - Rhodamine WT	1

August 2015 Phase IVa Injections **3,500 gallons Sodium Permanganate**
Oxidant - 3,500 gallons Sodium Permanganate (0.44 mg/L)

Injection Location	Permanganate Solution (gal)
Northern Infiltration Cell (NIC)	1,000
Middle Infiltration Cell (MIC)	1,000
Southern Infiltration Cell (SIC)	1,000
Interior Vault Cell (eastern and western)	500 (250 each)

November 2015 Phase IVb Injections **7,000 gallons Sodium Permanganate**
Oxidant - 3,500 gallons Sodium Permanganate (0.9 mg/L)

Injection Location	Permanganate Solution (gal)
Northern Infiltration Cell (NIC)	3,750
Middle Infiltration Cell (MIC)	1,250
Southern Infiltration Cell (SIC)	925
Interior Vault Cell (eastern and western)	1075 (537.5 each)

December 2016 Phase V Injections **12 Oxidant-Infused Cylinders**
Oxidant - Sodium Persulfate/Sodium Permanganate in paraffin wax (38:38:24)
2.5-inch or 1.35-inch diameter

Injection Location	Cylinders	
	lbs each oxidant/cylinder	total lbs oxidant
VEW-19 - 2.5-inch x2	2.185	8.74
VEW-27 - 1.35-inch x2	1.0925	4.37
VEW-32 - 2.5-inch x2	2.185	8.74
SIW-01 - 1.35-inch x2	1.0925	4.37
TSW-01 - 2.5-inch x2	2.185	8.74
TSW-05 - 1.35-inch x2	1.0925	4.37

November 2017 Phase V Injections (cont.) **6 additional Oxidant-Infused Cylinders**
Oxidant - Sodium Persulfate/Sodium Permanganate in paraffin wax (38:38:24)
1.35-inch diameter
Previously installed cylinders remain in wells

Injection Location	Cylinders	
	lbs each oxidant/cylinder	total lbs oxidant
VEW-19 - 1.35-inch (2.5-inch x2 prev.)	1.0925	2.185
VEW-27 - 1.35-inch (1.35-inch x2 prev.)	1.0925	2.185
VEW-32 - 1.35-inch (2.5-inch x2 prev.)	1.0925	2.185
SIW-01 - 1.35-inch (1.35-inch x2 prev.)	1.0925	2.185
TSW-01 - 1.35-inch (2.5-inch x2 prev.)	1.0925	2.185
TSW-05 - 1.35-inch (1.35-inch x2 prev.)	1.0925	2.185