

DRILL LOG

Operator License# 32834

API 15-121-31594-00-00

Operator JTC Oil, Inc.

Lease Name Hayes

Address 35790 Plum Creek Rd. Osaw. KS

Well # I-4

Phone 913-755-2959

Spud Date 7/24/19 Completed 7/25/19

Contractor License 32834

Location _____ of _____

T.D. 620 T.D. of Pipe 592

_____ feet from _____

Surf. Pipe Size 6 1/4 Depth 20 ft.
w/3sx cement

_____ feet from _____

Kind of Well Injection

County Miami

| Thickness | Strata | From | To | Thickness | Strata | From | To |
|-----------|--------|------|----|-----------|--------|------|-----|
| 2 | soil | 0 | 2 | 9 | shale | 166 | 175 |
| 12 | clay | 2 | 14 | 29 | lime | 175 | 204 |
| 49 | shale | 14 | 63 | 9 | coal | 204 | 213 |
| 18 | lime | 63 | 81 | 20 | lime | 213 | 233 |

Hayes I-4

2

| | | | | | | | |
|-----------|-------|-----|-----|----|------------|-----|-----|
| <u>23</u> | shale | 81 | 104 | 5 | coal | 233 | 238 |
| <u>6</u> | lime | 104 | 110 | 13 | lime | 238 | 251 |
| <u>40</u> | shale | 110 | 150 | 13 | shale | 251 | 386 |
| <u>16</u> | lime | 150 | 166 | 10 | lime/shale | 386 | 396 |

Hayes I-4

3

| <u>Thickness</u> | <u>Strata</u> | <u>From</u> | <u>To</u> |
|------------------|---------------|-------------|------------|
| <u>15</u> | shale | <u>396</u> | <u>409</u> |
| <u>17</u> | lime | <u>409</u> | <u>426</u> |
| <u>44</u> | shale | <u>426</u> | <u>470</u> |
| <u>4</u> | lime | <u>470</u> | <u>474</u> |
| <u>12</u> | shale | <u>474</u> | <u>486</u> |
| <u>4</u> | lime | <u>486</u> | <u>490</u> |
| <u>13</u> | black/shale | <u>490</u> | <u>503</u> |
| <u>6</u> | lime | <u>503</u> | <u>509</u> |
| <u>20</u> | shale | <u>509</u> | <u>529</u> |
| <u>4</u> | lime | <u>529</u> | <u>533</u> |
| <u>4</u> | coal | <u>533</u> | <u>537</u> |
| <u>3</u> | lime | <u>537</u> | <u>540</u> |
| <u>9</u> | shale | <u>540</u> | <u>549</u> |
| <u>2</u> | oil sand | <u>549</u> | <u>551</u> |
| <u>2</u> | oil sand | <u>551</u> | <u>553</u> |

Hayes I-4

4

| | | | |
|-----------|-------------|-----|-----|
| <u>2</u> | oil sand | 553 | 555 |
| <u>2</u> | oil sand | 555 | 557 |
| <u>35</u> | shale | 557 | 593 |
| <u>20</u> | black/shale | 593 | 613 |
| <u>7</u> | shale | 613 | 620 |