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*     *         *             *                 * 

COMAI COUNTY, THXAS
Records of wells, drillers' logs;
and water analyses, and map showing location of wells.

*     *         *             *                 *                     * 

WORKS PROGRESS ADETNISTRATION
GROUND WATER SURVEY
PROJECT 2084
E. J. Michal

Project Superintendent

*     *         *             *                 *                     *                         *                             * 

Analyses made, map prepared, data assembled, and report mimeographed by WORKS PROGRESS ADMINISTRATION PROJECT 6507-5112

*     *         *             *                 *                     *                         *                             *                                 * 

Sponsored by the State Board of Water Engineers with the Bureau of Industrial Chemistry of the University of Texas and the U. S. Geological Survey cooperating.

COMAL COUNTY, TEXAS

Introduction
by
Samuel F. Turner
Associate Hydraulic Engineer
U. S. Geological Survey

The purpose of this survey was to obtain information concerning existing wells and springs and the quantity and quality of water they yield, and put down test holes where additfonal information was needed.

This project was part of a statewide Works Progress Administration project known as a "Statewide Inventory of Water Wells," sponsored by the State Board of Water Engineers. The Division of Ground Water of the U. S. Geological Survey cooperated in the technical dir ection of the project and the Bureau of Industrial Chemistry of The University of Texas furnished laboratory space and equipment and supervised the chemical analyses.

The analyses were made by chemists amoloyed on Works Progress Administration Project 6507-5112 at Austin, Texas, sponsored by the State Board of Water Engineers. This release was typed and assembled by typists and draftsmen amployod on this project.

The field work in Comal County was started on October 9, 1936, and completed Jan. 30, 1937. This work was done as Project 2084 of District 10 of the Works Progress Administration, San Antonio, Texas. E. J. Michal, an engineer, was project superintendent. Mr. Michal should be given credit for his great interest in the work and for the many extra hours he spent on the project. The office of the Works Progress Administration in the San Antonio District made this work possible by their constant help and cooperation.

This release contains the well and spring records and well logs obtained by the project super intendent, logs of the test holes drilled by the W. P. A. labor, and the chemical analyses of water from privately owned wells and springs. Location of all wells and springs listed are shown on the folded map in the back of the release.

The test wells were drilled by W. F. A. labor using a soil auger, drop auger, chum drill, and a sand bucket. Samples were collected at one foot intervals by the well driller in charge of the party. Thc project superintendent studied these samples and compiled the logs.

Records of wells and spriars in Comal County, Texas
(All wells are bored or drilled unless otherwise noted in "Remarks" column.)

| No. | Distance from Hancock | Survey | Owner | Driller | Date com-pleted | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { fft. }) \end{array}\right\|$ | $\begin{array}{\|c} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in. }) \\ \hline \end{array}$ | Height of moasuring point above ground (ft.) a |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\begin{aligned} & \hline 9 \text { miles } \\ & \text { northwest } \end{aligned}$ | Jomn Hargrove | C.L. Mescrol | --- |  | Spring | -- | -- |
| 2 | $\begin{aligned} & 8 \frac{1}{2} \text { miles } \\ & \text { northrost } \end{aligned}$ | do. | do. | -- | old | 217 | 6 | 0 |
| 3 | $7 \frac{1}{2}$ miles northwest | do. | do. | -- | - | 220 | 6 | -- |
| 4 | $5 \frac{1}{2}$ miles northwest |  | E. Kederli | E. Kaderlf. | 1914 | 250 | 6 | 0.7 |
| 5 | $\begin{aligned} & 5 \text { miles } \\ & \text { northwest } \end{aligned}$ | $\begin{gathered} \text { G.W.T.\& P.R.R. } \\ \text { CO. } 897 \end{gathered}$ | Fmil Doell | Emil Doell | 1895 | 300 | 6 | -- |
| 6 | do. | Jos. F. Johnson | H. Eisher | H. Fishtr | 01d | 327 | 6 | -- |
| 7 | $\begin{aligned} & 5 \text { miles } \\ & \text { north } \end{aligned}$ | Jamss Pasloy | R. O. Fisher | -- |  | Epring | -- | -- |
| 8 | $\begin{aligned} & 5 \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | do. | W.O.Fischer | W.0.Eischer | r1922 | 218 | 6 | 0 |
| 9 | $\begin{aligned} & 5 \text { miles } \\ & \text { north } \end{aligned}$ | Wiley Hughes | $\qquad$ | H.J.Hass | 01 d | 275 | 6 | 0.6 |
| c/10 | $\begin{aligned} & 4 \frac{1}{2} \operatorname{miles} \\ & \text { north } \end{aligned}$ | F. Veinstrom | $\begin{aligned} & \text { Paul Schla- } \\ & \text { mous } \end{aligned}$ | -- | 01 d | 253 | 6 | -- |
| E/II | $\begin{aligned} & \hline 4 \text { miles } \\ & \text { north } \\ & \hline \end{aligned}$ | Fh. Carper | $\begin{gathered} \text { Emil Fester } \\ \text { fer } \end{gathered}$ | -- | 01d | 100 | 6 | -- |
| 12 | do. | do. | $\begin{gathered} \text { Fucene E. } \\ \text { Scheol } \end{gathered}$ | -- | 01 d | 220 | 6 | 0.9 |
| 13 | $\begin{aligned} & 4 \text { miles } \\ & \text { northwest } \\ & \hline \end{aligned}$ | M. W. Potter | Otto Truer | Otto Truer | 01d | 350 | 6 | 0 |
| 14 | 3I miles northwest | do. | do. | -- |  | Spring | -- | -- |
| 15 | $\begin{aligned} & 3 \text { miles } \\ & \text { northwest } \end{aligned}$ | do. | Lrs. D.Hall | -- | -- | do. | - | -- |
| 16 | $\begin{aligned} & 2 \frac{1}{2} \text { miles } \\ & \text { northwest } \end{aligned}$ | do. | C,D,Hall | -- | 1900 | 240 | 6 | 0.8 |
| 17 | $\begin{aligned} & 2 \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{gathered} \hline \text { G.W.T.\& P.R.R. } \\ \text { Co. } 899 \\ \hline \end{gathered}$ | F.J.Feters | -- | 01d | 500 | 6 | 1 |
| 18 | $\begin{aligned} & 2 \frac{1}{2} \mathrm{miles} \\ & \text { northeast } \end{aligned}$ | $\begin{gathered} \hline \text { Chas. Menzen- } \\ \text { berger } 124 \\ \hline \end{gathered}$ | Theo Myers | -- | 010 | 400 | 6 | -- |
| 19 | $\begin{aligned} & 3 \text { miles } \\ & \text { northeast } \end{aligned}$ | M. Ampora | J.C.Tglley | -- | 1928 | 325 | 6 | 0.8 |
| 20 | $\begin{aligned} & 6 \text { miles } \\ & \text { east } \\ & \hline \end{aligned}$ | C. Rooney | $\begin{aligned} & \text { MrseJemi: B } \\ & \text { Hickmen Boll } \\ & \hline \end{aligned}$ |  | 01d | 80 | 6 | 0.4 |
| 21 | $\begin{aligned} & \text { 2t miles } \\ & \text { east } \end{aligned}$ | Maria Ampora | $\begin{gathered} \text { Chas.Pentcr } \\ \text { mueh1 } \end{gathered}$ |  |  | Spring | -- | -- |
| 22 | do. | do. | do. | -- | 018 | 110 | 6 | 2.1 |
| 23 | $\begin{aligned} & 1 \mathrm{milo} \\ & \text { east } \end{aligned}$ | John Linde 33 | Max Linnartz | -- | 1902 | 228 | $\epsilon$ | 0.6 |

a/ Measuring point was usually tnp of casing, top of purap base or top of wcil curb. b/ A, air-lift; B, bucket; C, cylinder; Cf, eentrifugal; G, gasoline ongine; H, hand; $P$, public supply; W, windmill; number indicates horscpower.

Records obtained by Emil J. Michal, Project Superintencent (Chemical analyses of water from these wells and sprirgs are in the table of analyses.') No. | Wepth Later Level |  |  |
| :--- | :--- | :--- |
| Date of | Pump | Use |
| Remarks |  |  |

|  | $\begin{gathered} \text { below } \\ \text { measur } \\ \text { ing po } \\ \text { (feet) } \end{gathered}$ | measure-r- ment oint ) | $\left\|\begin{array}{c} \text { and } \\ \text { power } \\ \mathrm{b} / \end{array}\right\|$ | of <br> water <br> c/ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Flows | $\begin{aligned} & \text { Nov. } 13 \\ & 1936 \\ & \hline \end{aligned}$ | C, 0 | D,S | Estimated flow, 8 gallons a minute from 1 opening in linestone. |
| 2 | 155.7 | do. | C,W | S | Concrote curb; 10 feet steel casing ot top. Well measured mhile numping. |
| 3 | 200 | d/ | C, 7 | D, S | 10 foct stcol casing at top. Reportod never frils in 1 drought. |
| 4 | 36.8 | $\begin{aligned} & \text { lov } \cdot 13, \\ & 1936 \end{aligned}$ | O, 17 | D, S | concrete curb. |
| 5 | 160 | d) | C, 7 | D, S | 10 ficet stool casine nt top. Roported never frils in drought. |
| 6 | 122.8 | $\begin{aligned} & \text { Nov. } 4 \\ & 193 E \end{aligned}$ | $\begin{gathered} C, G \\ 3 \end{gathered}$ | D, S | Mreasurine point 0.7 below ground level; 20 feet steel casing it top. Tater reported from sond, 3:0-327 fect, and from senustone ct 250 feet. Drilled in 1908, 250 327 feet to ircrease supply. Reported never frils in |
| 7 | Flows | do. | C, 7 | D, S | 9 feet rock e sing it top. Reported water level drops to 4 feet below ground level in drought. Estimeted flor, 60 gallons 2 minute from 1 |
| 8 | 175 | $\begin{aligned} & \text { Dec. } 31, \\ & 1936 \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{C}, \mathrm{G}, \\ 1 \mathrm{I} \\ \hline \end{gathered}$ | D,S | 15 feet steel cising st lopening in linestone. top. Reportca nevor fails in drought. |
| 9 | 156.2 | $\begin{aligned} & \text { Nov: } 4, \\ & 1936 \end{aligned}$ | C, 7 | D, S | On Comel-Hrys County line. Reported nover frils in drought. |
| 10 | 85 | d/ | C, W | D, S | Reported nevir feils in drought. |
| 11 | 36 | d/ | S, 7 | D, S | DO. |
| 12 | 48 | $\begin{aligned} & \text { Dec. } 3, \\ & 1936 \\ & \hline \end{aligned}$ | C, 7 | D, S | Wood block curb; 30 feet stcel cosing at top. Rcporte nover feils in drought. Weter roported from sendstonc, |
| 13 | 144.1 | $\begin{aligned} & \text { Dec. } 4, \\ & 1936 . \end{aligned}$ | C\% | D, S | Reported never fails in drought. $190-210$ feet. |
| 14 | Flows | $\begin{aligned} & \text { DCC. } 31 \\ & 1936 \\ & \hline \end{aligned}$ | None | D | Estimeted flom, 75 gallons : minute from 3 opinings in limestone. Roportad nescr fails in drought. |
| 15 | Flows | $\begin{aligned} & \text { Nov. 4, } \\ & 1936 \\ & \hline \end{aligned}$ | None | S | Estimoted flou, 75 gallons a minute from 3 openings in limestone. Reported springs flow about 6 months a yeer |
| 16 | 45.7 | do. | C, W | D, S | 22 feet steel essing st top. Vater reported from sand at 240 feet, frors sandstone at 80 feet. Reported never |
| 17 | 140.4 | $\begin{aligned} & \text { Dec. } 31, \\ & 1936 \\ & \hline \end{aligned}$ | C, W | D. C | Steel casing. K:ported never fails fails in drought. in drought. |
| 18 | 345 | d/ | 0,7 | D, 5 | Reported nower ils in drought. |
| 19 | 171.3 | $\begin{aligned} & \text { Dec. } 8, \\ & 1936 \end{aligned}$ | C, 7 | D, S | Steel crsine. Faported never fails in drought. Toll mossurcd -hilc pumping. |
| 20 | 6.4 | d/ | O, W | D, S | Reported never fails in drought. |
| 21 | F10ws | $\begin{aligned} & \text { Dec. } 31, \\ & 1936 \end{aligned}$ | None | S | Estimsted flo7, 100 gallons a minute from 5 openings in limestone, only one of which is reported to flor the |
| 22 | 13.4 | do. | C, D | D, S | Steel cesing. Reported never fails. Lyear around. in droucht. |
| 23 | 128.9 | $\begin{aligned} & \text { Nov. } 3, \\ & 1936 \end{aligned}$ | C, V | D, S | Do. |

c/ I, irrigation; Ind, industrial; $D$, domestic; $S$, stock; $N$, not used.
d/ Water level reported.
E/ No water sample collected for anelysis.
-5-
Records of wells and springs in Comal County--Continued

| No. | Distance from Hancock | Survey | Omer | Driller | $\begin{aligned} & \text { Date } \\ & \text { com- } \\ & \text { ple- } \\ & \text { ted } \end{aligned}$ | Depth or well (ft.) | $\begin{array}{\|c} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in. }) \end{array}$ | $\|$Height of <br> measuring <br> point <br> above <br> ground <br> (ft.) a/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | In Hancock | John O'Daniel | Frank Guenther | -- | 1915 | 169 | 6 | 0.8 |
| 25 | $\begin{aligned} & 5 \text { miles } \\ & \text { west } \end{aligned}$ | Julius Bremer 651 | George $T$. Spears |  | eld | 300 | 6 | 0 |
| E/26 | $\begin{aligned} & 10 \text { miles } \\ & \text { west } \end{aligned}$ | A.Scott 24 | Fred and <br> Richard <br> Schaefer- <br> koeter | Tim. Naeu erbauo |  | $125$ | 6 | 0.5 |
| 27 | do. | $\begin{gathered} \text { F. Schaefer } \\ \text { koeter } \end{gathered}$ | do. | -- |  | Spring | -- | -- |
| 28 | $\begin{aligned} & 11 \text { miles } \\ & \text { west } \end{aligned}$ | T.M.Fowler 27 | Bert Specht |  |  | do. | -- | -- |
| E/29 | $\begin{aligned} & 8_{2}^{1} \text { miles } \\ & \text { vest } \end{aligned}$ | H. Raisnor 53 | Fr. Porter | Ot to Vog \& Bob Pa | $1890$ | $226$ | 6 | 1.1 |
| 30 | $\begin{aligned} & 8 \text { miles } \\ & \text { west } \end{aligned}$ | C.Hendenberg 62 | Mrs. P. G. Rermler | - |  | $\overline{184}$ | 6 | 1.4 |
| 31 | $\begin{aligned} & 7 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | G. Long 345 ${ }^{\text {a }}$ | J.K.BEretta |  |  | 280 | 6 | 0.7 |
| 32 | $\begin{aligned} & 6 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | S.Folley 340 | $\begin{gathered} \text { Mrs. J. } \\ \text { Hecrd } \end{gathered}$ | - | O1d | 100 | 6 | - |
| 33 | $\begin{aligned} & \hline 6 \text { miles } \\ & \text { west } \end{aligned}$ | D.Louders 345 | Clance liear | $\begin{aligned} & \mathrm{d} \text { Tom } \\ & \text { Aãare } \\ & \hline \end{aligned}$ |  | 120 | -- | 0.6 |
| 34 | $\begin{aligned} & 5_{\frac{1}{2} \text { miles }} \\ & \text { west } \end{aligned}$ | do. | Ed.Kaderli | Jessie ${ }_{\text {Pege }}$ | 1903 | 112 | 6 | 0.1 |
| 35 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | - Clemons | A.H.FIugrath | -- | -- | Spring | -- | -- |
| e/36 | $\begin{aligned} & 4 \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{gathered} \text { Isaac H. Tur- } \\ \text { ner } 342 \end{gathered}$ | M. Engle | -- | 01d | -- | -- | 1.3 |
| 37 | $\begin{aligned} & 7 \text { miles } \\ & \text { southwest } \end{aligned}$ | Robt.Kelly 391 | T.A.Ellis | -- |  | 240 | 6 | -- |
| 38 | do. | do. | do. | -- | 01d | $20$ | 36 | 3 |
| 39 | $\begin{aligned} & 6 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | J. R.Hermann 558 | do. | -- | 01 c | 50 | 24 | 0.3 |
| 40 | 4 $\frac{1}{8}$ miles southrest | Chas.Schuchaal 561 | ilbert Pape | -- | $\begin{array}{r} 1906 \\ \hline \end{array}$ |  | 6 | 1 |
| 41 | $\begin{aligned} & \hline \text { iT miles } \\ & \text { south } \end{aligned}$ | A.C.Horton 29 | W.H.Hans | -- | $\begin{array}{r} 1902 \\ 1 \\ \hline \end{array}$ | $175$ | 6 | 0.4 |
| 42 | $\begin{aligned} & 2 \frac{1}{2} \text { miles } \\ & \text { Southeast } \end{aligned}$ | Maria Ampara 3 | Henry Pantermuehl | -- | O1d | -- | 6 | 0.5 |
| 43 | $\begin{aligned} & 3 \frac{1}{2} \text { miles } \\ & \text { southeast } \end{aligned}$ | đo. | Theo. Kreft | -- | $1896$ |  | 6 | 0.6 |
| 44 | $\begin{aligned} & 6 \text { miles } \\ & \text { east } \end{aligned}$ | Fm.C.Gould 106 | Fugene Grein | -- | 01d | 250 | 6 | -- |
| 45 | $5 \frac{1}{2}$ miles southeast | H.A.Reed 16 | $\begin{aligned} & \text { Walter } \\ & \text { Kadurli } \end{aligned}$ | -- | 01d | 170 | 6 | 0.4 |
| 46 | $\begin{aligned} & 5 \mathrm{miles} \\ & \text { south } \end{aligned}$ | $\begin{gathered} \hline \text { Hy Weichold } \\ 728 \\ \hline \end{gathered}$ | K.Leaghline |  |  | Spring | -- | -- |
| 47 | $7 \text { miles }$ south | J. Preusser 671 | -- | -- | -- | do. | -- | -- |

Finil J. Michel, Projeet Superintendent

| No. | $\begin{aligned} & \text { Depth } \\ & \text { Delow } \\ & \text { measur } \\ & \text { ing po } \\ & \text { (feet) } \\ & \hline \end{aligned}$ | Level <br> Date of <br> measure- <br> - ment | Pump and power b/ | Use of rater c/ | Remerks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | 88 | $\begin{aligned} & \text { Nov. }{ }^{4}, \\ & 1936 \end{aligned}$ | $\begin{gathered} C_{y}, 7, \varepsilon \\ G,- \end{gathered}$ | D,S | 20 feet steel casing top. Weter from sandstone at 85 feet and $\mathrm{y} t 110$ : sand, 168-169 feet. Reported novor |
| 25 | -- | -- | C, ${ }^{\text {c }}$ | D,S | Steel cesing. fails in arought. |
| 26 | 114 | $\left\|\begin{array}{l} \text { Dec. } 10_{2} \\ 1936 \end{array}\right\|$ | C, H | D, S | Tood block eurb; 20 feet steel cesing it top. Fell measurcd wile pumping. Reported dry, pumping $2^{1}$ gallons a minuta for 1 hour 20 minutes required for water level to rotum to nomsl. |
| 27 | Flows | do. | None | D, S | Concretc bisin, $4 \times 2 \times 4$ fect. Estimeted flor, 120 gallons s minute from 3 openings in limustone. |
| 28 | do. | do. | None. | S,I | Estimeted flog, 300 g llons a minute from soveral openings in limestone. Irrigated $1 \frac{1}{2}$ ncres. |
| 29 | 151.9 | $\begin{aligned} & \hline \text { DCc. } 9, \\ & 1936 \\ & \hline \end{aligned}$ | None. | N | Revorted :indmill formerly pumped rell dry in $\frac{1}{3}$ hour. Teter level returned to normal in 3 hours. -inter re- |
| 30. | 100.8 | do. | C, ${ }^{\text {d }}$ | D, S | 10 feet steel cas- Tported from blue clay, $220-226$ fect ing at top. Measured while pumping. Reported formerly pumped dry with gasoline engine in $2 \frac{1}{2}$ hours at 10 gallons $=$ minute. Water level returned to normal in $\frac{1}{2}$ hour. Roprted newr fails in drought. |
| 31 | 198.2 | do. | $\begin{gathered} \hline \mathrm{C}_{3} \mathrm{~F}, 8 \\ \mathrm{G}, 2 \\ \hline \end{gathered}$ | D, S | 2 feet steel crsing it top. Measured while pumping. Reported drawdon 1.1 fert pumping 3 gallons a minute |
| 32 | -- | -- | C, 0 | D, S | Reported never frils in drought. ${ }^{\text {dor }} \frac{1}{4}$ hour. |
| 33 | 64.7 | $\begin{aligned} & \text { Dec. } 9, \\ & 1936 \end{aligned}$ | C, 7 | D,S | No casing. Fieported never fails in drought. |
| 34 | 55.5 | do. | C, N | D, 5 | 40 feet gelrinized casing at top. Reported never fail. in drought. |
| 35 | Flows | $\begin{aligned} & \text { Nov. } 13, \\ & 1936 \end{aligned}$ | None | D, S | Estimeted fict 1240 gellons $\approx$ minute in summer and 1650 gellons minute in winter from 1 lrge opening |
| $\overline{36}$ | 42.2 | do. | C, H | N | Rock curb. in limestono. |
| $\overline{37}$ | 190 | $\begin{gathered} \text { d/Sept. } \\ 1936 \end{gathered}$ | $\begin{aligned} & \hline \text { C,W } \\ & \text { G, } 1 \frac{1}{2} \end{aligned}$ | D, S | 10 fect stcol casing at top. |
| 38 | 7.8 | $\begin{aligned} & \text { Dec. } 15, \\ & 1936 \end{aligned}$ | None | N | Dug - 611. Rock curb. Reported no failure since 1931, Previous history not $\varepsilon$ vilinble. |
| 39 | 2.4 | do. | B, H | D, S | Due woll. Rock curb. Reportsd never frils in drouglit. |
| 40 | 79.7 | $\begin{aligned} & \text { Nov. 13, } \\ & 1936 \end{aligned}$ | c, W | D, S | Steel cesing. |
| 41 | 41.4 | $\begin{aligned} & \text { Dec. 31, } \\ & 1936 \end{aligned}$ | C, W | D,S | 8 feet steel crsing at top. |
| 42 | 32.8 | $\begin{aligned} & \text { Nov. }{ }^{4,} \\ & 1936 \\ & \hline \end{aligned}$ | C, 7 | S | Mer sured drawdown 10.9 seet pumping 1 gallon n ninute for $1 / 6$ hour. Steel cosing. Reported never fails in |
| 4.3 | 39.4 | $\begin{aligned} & \text { Nov. } 3, \\ & 1936 \end{aligned}$ | C,7 | D, S | 2 feet steel c'sing at top. Weter reported drought. from srnd stone sit 80 feet end white sand, $420-428$ foet. |
| $4 \pm$ | -- | -- | C, V | D, C | Steel cnsing. Reported navor fails in droucht. |
| 45 | 67.9 | $\begin{aligned} & \text { Nov. } 3, \\ & 1936 \end{aligned}$ | $\begin{gathered} C, 0, x \\ G, 5 \end{gathered}$ | D, S | Steel crsing Reported never fails in drought. |
| 46 | Flo:s | $\begin{aligned} & \text { Nov: } 5, \\ & 1936 \end{aligned}$ | None | S | Estimeted flo: 2 grillons a minute from 1 or 2 openings in limestore. |
| 47 | do. | do. | None | S | Concrete besin. Locetad nenr top of hill. |

Records of wells and springs in Comel County－Continued

| NO． | Distance from Hancock | Survey | Owner | Driller | Date com－ ple－ ted | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { fft. } \end{array}\right\|$ | Diam <br> eter <br> of <br> well <br> （in．） | Height of measuring point above ground （ft．）a／ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | $\begin{array}{\|l} 5 \text { miles } \\ \text { southwest } \end{array}$ | $\begin{gathered} \text { Sam Nelson } \\ 331 \\ \hline \end{gathered}$ | $\begin{gathered} \text { H. W. Kratt } \\ \text { Estate } \end{gathered}$ | －－ | O1d | 69 | － | 1.7 |
| 49 | do． | do． | do． | －－ |  | Spring | －－ | －－ |
| No． | $\begin{gathered} \text { Distance } \\ \text { from } \\ \text { f/Bul- } \\ \text { verde } \end{gathered}$ | Survey | Ominer | Driller | Date <br> com－ <br> ple－ <br> ted | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ (\mathrm{ft.} . f \end{array}\right\|$ | Diam－ <br> eter <br> of <br> well <br> （in．） | Height of measuring point above ground （ft．）$/$／ |
| 101 | $\begin{aligned} & 13 \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | TM．Fowler 27 | Bert Specht | － | 1881 | 212 | 6 | 0.7 |
| 102 | $\begin{aligned} & 12 \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{gathered} \hline \text { Chas. Stroud } \\ 26 \\ \hline \end{gathered}$ | Ed．Gass | $\cdots$ | Old | 140 | 6 | 0.5 |
| 103 | $\begin{aligned} & 11 \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{gathered} \text { W.C.Howerd } \\ 165 \end{gathered}$ | Arno Knibbe | －－ | 1885 | 124 | 6 | －－ |
| 104 | do． | $\begin{gathered} \text { Amos Smith } \\ 103 \end{gathered}$ | G．7．Iyles | －－ | －－ | Spring | －－ | －－ |
| 105 | do． | A．Crier 11 | Frie Speeh | t－－ | 1926 | 75 | 6 | 1.2 |
| 106 | $\begin{aligned} & 10 \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | do． | dos | －－ | －－ | 250 | 6 | 0.5 |
| 107 | $\begin{aligned} & 10 \mathrm{miles} \\ & \text { north } \end{aligned}$ | E．Howard 19 | $\begin{gathered} \text { Fim. Neuge- } \\ \text { bauer } \end{gathered}$ | Monken \＆ Neugenbauer | $1886$ | 163 | 6 | 0.4 |
| 108 | $\begin{aligned} & 10 \frac{7}{2} \text { miles } \\ & \text { north } \end{aligned}$ | do． | Arno Enibbe | －－ | 1900 | 225 | 6 | 1.1 |
| 109 | do． | $\begin{aligned} & \text { J.Christian } \\ & 22 \end{aligned}$ | D．L．Knibbe | －－ | 01d | 120 | 6 | 2.2 |
| 110 | do． | $\begin{aligned} & \text { John Angel } \\ & 21 \end{aligned}$ | do． | －－ | Old | 280 | 6 | 0.5 |
| 111 | do． | $\begin{aligned} & \text { H. G•Henderson } \\ & 348 \end{aligned}$ | Chas．ElbeI | ＊－ | O1d | 100 | 6 | 1．2 |
| e／112 | $\begin{aligned} & 9 \text { miles } \\ & \text { north } \end{aligned}$ | J．Angel 21 | $\begin{aligned} & \text { Alfred } \\ & \text { Gass } \end{aligned}$ | － | O10 | 78 | 6 | $\sim$ |
| 113 | $\begin{aligned} & 10 \mathrm{miles} \\ & \text { north } \end{aligned}$ | do． | do． | －－ | 1918 | 175 | －－ | 0 |
| 114 | $00 .$ | Ed．Howard 19 | Harry Knibb |  | $-\infty$ | Spring | －－ | －－ |
| 115 | $\begin{aligned} & 9 \text { miles } \\ & \text { north } \end{aligned}$ | A．H．Jones 89 | William Specht | －－ | －－ | 250 | 6 | 0.6 |
| 116 | $\begin{aligned} & 8 \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{aligned} & \text { J. Henderson } \\ & 46 \\ & \hline \end{aligned}$ | Ed．Bartels | －－ | 1886 | 80 | 6 | 0.8 |
| 127 | B $\frac{1}{2}$ miles northeast | Elias Elint 73 | Alfred Beie | 1e－－ | 1928 | 157 | 6 | 0 |
| 118 | $\begin{aligned} & 9 \text { miles } \\ & \text { northeast } \end{aligned}$ | A．H．Jones 78 | Henry Jonas Estate | －－ | 1901 | 108 | 6 | 0.6 |
| 119 | $8 \frac{1}{2}$ miles northeast | M．morena 77 | John Stricke | er－－ | Old | 250 | 6 | 0.2 |
| 120 | $\begin{aligned} & \text { 7⿱亠䒑⿱二厶力八 miles } \\ & \text { north } \end{aligned}$ | Wh．Strawn 74 | S．L．Gill | $\begin{gathered} \text { Bob Johni } \\ \text { son } \end{gathered}$ | 1935 | 280 | 6 | 0.8 |
| 121 | $\begin{aligned} & 7 \text { miles } \\ & \text { north } \end{aligned}$ | E．Flint 76 | Wm．Gast | －－ | 01d | 115 | 6 | 0.6 |

f／Bulverde is a small settlement，variously knom as Bartel＇s or Togue s and lacated
about lis miles north of a settlement in Bexar County that is al so known as Bulverde．
about $1 \frac{1}{2}$ miles north of a settlement in Bexar County that is also known as Bulverde．

Emil J. Michal, Project Superintendent

| No. | Water Depth below measur ing po (feet) | Level Date of measure- - ment | Pump and power b/ | Use of water c/ | Remariks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | $57.5$ | $\begin{array}{\|l\|} \hline \text { ivor. } 13, \\ 1936 \end{array}$ | C, 7 | D, S | Reported never fails in drought. |
| 49 | Flows | $\begin{aligned} & \text { Nov. 16, } \\ & 1936 \end{aligned}$ | None | S |  |
| IVo. | Water <br> Depth <br> belon <br> measur <br> ing po <br> (feet) | Level Date of measure- r- ment oint ) | Pump and power b/ | Use of water c/ | Remarks |
| 101 | -- | -- | C, 7 | D, S | 20 fict stel casing at top. Water levol belor. 141 foct. |
| 102 | 50.8 | $\begin{aligned} & \text { Dec. } 9, \\ & 1936 \end{aligned}$ | C, 71 | D, S | Stcol casing. |
| $\overline{103}$ | 43 | $\begin{aligned} & \text { Dec. } 10, \\ & 1936 \end{aligned}$ | C,Ti | D, S |  |
| 104 | Flows | $\begin{aligned} & \text { Nov. } 20, \\ & 1936 \end{aligned}$ | None | D,S | Estimated flow, 700 gallons a minute from cavity in limestone. |
| 105 | 64.7 | do. | C, 7 | D, S | Reported never fails in drought. |
| 106 | 178 | do. | C, V | D, 5 |  |
| 107 | 45.8 | do. | C, 1 | D, S | Water reported from blue clay, 69-71 feet. |
| 108 | 112.6 | $\begin{aligned} & \text { Pec. } 10, \\ & 1936 \end{aligned}$ | C,77 | N |  |
| $\overline{109}$ | 48.4 | do. | C, F | D, S | Measured while pumping. Reported never fails in drought. |
| 110 | 113.8 | do. | C, ${ }^{\text {F }}$ | S |  |
| 111 | 61.3 | $\begin{aligned} & \text { Dec. } 9, \\ & 1936 \\ & \hline \end{aligned}$ | C, 7 | D, S | Stevl easing. Reported never fails in drought. Iocatea in rivir bottoms. |
| 112 | 28 | d/ | C, 0 | D, S |  |
| 113 | 58 | $\begin{aligned} & \text { Nov. } 20, \\ & 1936 \end{aligned}$ | C, 7 | D, S | Galvanizea eurb. |
| 114 | Floms | Nov. 20, <br> 1936 <br> do. | C, W | D, S | Estimated fio J5 gellons a minute from l opening in limeston=. Hydraclic ram supplies school and community Poported deptr formerly 70 fect. Supply failed. Drill ca 7u-250 fect, b-inen steel casing, top to botom. Dater reported from sanaslone, $240^{\circ}-40$ 1eet. |
| 116 | 66.6 | $\begin{aligned} & \text { Dec. } 10, \\ & 1936 \end{aligned}$ | G, $0^{\text {a }}$ | D, S | Steel casing. Well measured while pumping. |
| 117 | 119.1 | $\begin{aligned} & \text { Nor. } 20, \\ & 1936 \end{aligned}$ | C, Wid | D, S | 2 feet galvanized iron casing at top. Reported slight drawdown pumpine 7 galions a minute for 12 hours. |
| 118 | 93.5 | $\begin{aligned} & \text { Jan. 26, } \\ & 1937 \end{aligned}$ | C, W | D, S | 20 feet steel casing at top. Reported never fails in drought. |
| 119 | 166.9 | $\begin{aligned} & \text { Nov. } 19, \\ & 1936 \end{aligned}$ | C, V | D, S | Concrete curb; steel casing. lell measured while pumping. |
| 120 | 74.9 | $\begin{aligned} & \text { Nov. } 16, \\ & 1936 \end{aligned}$ | C, 7 | $\begin{aligned} & \text { D, } \mathrm{S}, \\ & \text { Ind } \\ & \hline \end{aligned}$ | 10 feet steel casing at top. Tater reported from limestone at 70 feet and 23r-232 feet. Reported never |
| 121 | 108 | $\begin{aligned} & \text { Nov. } 27, \\ & 1936 \end{aligned}$ | C, 7 | D, S | Steel casing. Tell moasured while fails in drought. pumping. |

Records of wells and springs in Comal County--Continued

| No. | $\begin{gathered} \text { Distance } \\ \text { from } \\ \text { Buiverde } \end{gathered}$ | Survey | Owner | Driller | Date com- <br> ple- <br> ted | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \left.\mid f t_{*}\right) \end{array}\right\|$ | $\begin{gathered} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in.) } \end{gathered}$ | Height of measuring point above ground (ft.) a/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122 | $\begin{aligned} & 8 \text { miles } \\ & \text { north } \end{aligned}$ | A.H.Jones 89 | Erie Specht | -- | O1d | 200 | 6 | 0.6 |
| 123 | $\begin{aligned} & 6 \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{gathered} \text { Henry Wehe } \\ 610 \end{gathered}$ | Fred Wehe | A. Brom | 1901 | 1350 | - | -- |
| 124 | $\begin{aligned} & 6 \frac{1}{2} \text { miles } \\ & \text { north } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Simon Free- } \\ & \text { child } 75 \\ & \hline \end{aligned}$ | Ed. Kuebel | -- | 1916 | 210 | 6 | 0.9 |
| 125 | $\begin{array}{\|l\|} \hline 8 \text { miles } \\ \text { northeast } \end{array}$ | $\begin{gathered} \text { Hugh White } \\ 392 \\ \hline \end{gathered}$ | Otto Erben | -- | 01d | 450 | 6 | 0.3 |
| 126 | $\begin{array}{\|l\|} \hline 9 \frac{1}{2} \text { miles } \\ \text { northeast } \\ \hline \end{array}$ | B.S.\& F. 813 | $\begin{gathered} \text { Julius Bre } \\ \text { mer } \\ \hline \end{gathered}$ | -- | 1906 | 185 | 6 | -- |
| E/127 | $\begin{array}{l\|} \hline \frac{1}{2} \text { miles } \\ \text { northeast } \end{array}$ | $\begin{aligned} & \text { H.E.\& V.T. } \\ & \text { R.R.CO. } 919 \\ & \hline \end{aligned}$ | A.J.Walser | -- | 01d | 264 | 6 | 0.5 |
| 128 | do. | do. | do. | -- | -- | 64 | 6 | 0.2 |
| e/129 | $\left\lvert\, \begin{aligned} & 7 \text { miles } \\ & \text { northeast } \end{aligned}\right.$ | $\begin{gathered} \hline \text { C.Weidner } \\ 873 \\ \hline \end{gathered}$ | C. ${ }^{\text {Peidner }}$ | -- | O1d | 350 | 6 | 3.0 |
| 130 | $\begin{array}{\|l\|} \hline 6 \text { miles } \\ \text { northeast } \end{array}$ | E. Flint 73 | R.P. Holt | -- | 01d | 620 | 6 | -- |
| 131 | $\begin{aligned} & 5 \text { miles } \\ & \text { north } \end{aligned}$ | Theo. Hanz 725 | J.J.Arre <br> chea | -- | O1d | 300 | 6 | 1. |
| 132 | $\begin{array}{\|l} 5 \text { miles } \\ \text { northwest } \end{array}$ | C. Mocis 600 | A.P. Scheel | - | 1913 | 350 | 6 | -- |
| 133 | $\begin{array}{\|l\|} \hline 6 \text { miles } \\ \text { northwest } \end{array}$ | R.Moos 722 | Eugene $V$. Scheel | Schwartz <br> \& Nichol | 1898 | 280 | 6 | 0.6 |
| 134 | do. | $\begin{gathered} \text { D.0.Dougherty } \\ 239 \end{gathered}$ | E.A.MOOS | $\begin{gathered} \text { Herman } \\ \text { Moos } \end{gathered}$ | 1922 | 96 | 6 | 0.7 |
| 135 | $\begin{aligned} & 9 \text { miles } \\ & \text { northwest } \end{aligned}$ | Henry S . Stouffer 240 | John Kunc | -- | 1924 | 300 | 6 | - |
| 136 | $\begin{aligned} & 8 \text { miles } \\ & \text { northwest } \end{aligned}$ | do. | Mrs. Frme Saur | -- | 01d | 218 | 6 | 0.3 |
| 137 | $\left\lvert\, \begin{aligned} & 10 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}\right.$ | Maria de la Luz Guerra 172 | Guy S. McFarland | -- | O1d | 300 | 6 | 0 |
| 138 | $\begin{aligned} & 8 \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{gathered} \hline \text { D. I. Babcock } \\ 228 \\ \hline \end{gathered}$ | Bruno Klar | - | 1860 | 25 | 36 | 1. |
| 139 | $\begin{aligned} & 6 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{aligned} & \text { Henry } S . \\ & \text { Stouffer } 222 \end{aligned}$ | Joseph Offer | r- | -- | 200 | - | 0 |
| 140 | $\begin{aligned} & 6 \text { miles } \\ & \text { west } \end{aligned}$ | E.Velasco 223 | Ex. Neugebauer | -- | 1885 | 300 | 6 | 1. |
| 141 | do. | do. | George Bros. |  | 1885 | 216 | 6 | -- |
| 142 | do. | John Rhea 225 | Mrs. C. L. Ellsworth | -- | Old | 217 | -- | -- |
| 143 | $\begin{aligned} & \begin{array}{l} 4 \frac{1}{2} \text { miles } \\ \text { west } \end{array} \\ & \hline \end{aligned}$ | H. Yaerger 235 | Aug-Scholz Est. | R.Schwartz | 1906 | 236 | 6 | 0.3 |
| 144 | do. | do. | do. | do. | 1906 | 265 | 6 | 0.4 |
| 145 | $\begin{aligned} & 5 \text { iniles } \\ & \text { west } \end{aligned}$ | J. Webb 237 | Mrs: Chas. Erben | - Brown | 1895 | 235 | 6 | -- |
| 146 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { northwest } \end{aligned}$ | do. | E.A.Laubach | -- | $01 d$ | 400 | -- | -- |

a/ lieasuring point mas usualiy top of casing, top of pump base or top of well curb. b/ A, air-lift; B, bucket; C, cylinder; Cf, centrifugal; G, gasoline engine; H, hard; $P$, public supply; W, windmill; number indicates horsepowor.

Emil J. Miohel, Project Superintendent

| NC. | $\begin{array}{\|l} \hline \text { Water } \\ \text { Depth } \\ \text { belon } \\ \text { measur } \\ \text { ing po } \\ \text { (fect) } \\ \hline \end{array}$ | Level <br> Date of <br> measure- <br> $-\quad$ ment | $\left\lvert\, \begin{gathered} \text { Pump } \\ \text { and } \\ \text { power } \\ \text { b/ } \end{gathered}\right.$ | Use of water c/ | Reme rks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 122 | 157.8 | $\text { Hov. } 27$ | C, 0 | D, S | Steel casing. Reportod never fails in drought. |
| 123 | 315 | $\begin{array}{\|l\|} \hline \text { Nov. } 21, \\ 1936 \end{array}$ | C,7 | D, S | No casine. Roportoz novir fails in drought. |
| 124 | 210 | $\begin{array}{\|l\|} \hline \text { Nov. } 16, \\ 1936 \end{array}$ | C, ${ }^{\text {T }}$ | D, S | Gavenizca casine. Rontod novor fails in drought. |
| 125 | 273.4 | $\begin{aligned} & \mathrm{NOV} \cdot 2, \\ & 1936 \end{aligned}$ | $\left.\begin{array}{r} 0, W, 8 \\ 0,2 \end{array} \right\rvert\,$ | 2,5 | Stocl cesine. Raportod slight dramdom pumping tith zasoline cngine for 24 hours. |
| $\overline{126}$ | 85 | $\begin{aligned} & \text { Nov. } 25, \\ & 1936 \end{aligned}$ | $\begin{gathered} C, G, \\ 1 \frac{1}{2} \\ \hline \end{gathered}$ | D, S | 10 fuct st el casing at top. Reported nevar fails in drought. |
| 127 | 236.8 | $\begin{aligned} & \text { Nov. } 2, \\ & 1936 \end{aligned}$ | C,G2 | D, S |  |
| 128 | 14.5 | do. | C, 1 | D, 5 | Soncrete eurb; stsel casing. Reported never fnils in arourht. |
| 129 | 261.6 | $\begin{aligned} & \text { Nov } \cdot 25, \\ & 1936 \end{aligned}$ | C, $\overline{7}$ | N | Reported never fils in drought. |
| 130 | -- | -- | C, H | D, S | Steel casine. Reported never fails in drought. |
| $\overline{131}$ | 117.8 | $\begin{aligned} & \text { Nov. } 16, \\ & 1936 \end{aligned}$ | $\begin{array}{\|r\|} \hline 0, W \\ G, 1 \frac{1}{4} \\ \hline \end{array}$ | D, 5 | Do. |
| 132 | -- | -- | C, iv | D, S | Tater level belor: 300 feet. Reported never feils in drought. |
| 133 | 134.5 | $\begin{aligned} & \text { Dec.7\% } \\ & 1936 \end{aligned}$ | $\begin{gathered} 0,7,8 \\ G, 2 \\ \hline \end{gathered}$ | D, S | 2 feet steel casing et top. Reported neter feils in drought. |
| 134 | 54.0 | do. | C, 7 | D, S | Steel crsing. Reported never fails in drought. |
| $\overline{155}$ | 273 | d/ | C, W | D, S | $2 C$ feet steel casing at top. Reportod nover fails is drought. |
| 136 | 210.4 | $\begin{aligned} & \text { Dec. } 23, \\ & 1936 \end{aligned}$ | C, T | D, ${ }^{\text {S }}$ | 6 feet steel cesing at top. Reported nover fails in drought. |
| 137 | 124.6 | do. | C, ${ }^{\prime}$ | D, S | 10 foct steal casing at top. Reported never fails in arought. |
| 138 | 14.7 | do: | C, 7 | D, S | Dus mell. Rock curb. Reported flows in mot seasons. |
| 139 | 125.6 | do. | C, ${ }^{\text {P }}$ | D,S | e curb. Feporte |
| 140 | 136 | $\begin{aligned} & \text { Dec. }{ }^{7} \\ & 1936 \\ & \hline \end{aligned}$ | $\begin{gathered} C, W, \& \\ G,- \end{gathered}$ | D, 5 | Rock curb; 20 feat steel casins at top. Reported never fatis in aroucht. |
| 141 | 180 | d/ | C, 71 | D, S | Reporteă singt ârulom pumping 7 gallons $\varepsilon$ minute for 10 hours. |
| 142 | 187.3 | $\begin{aligned} & \text { Dec. } 23, \\ & 1936 \end{aligned}$ | C, 6,3 | I, S | Voncrete durb; ro ofsins. Reported never fails in Groucht. |
| 143 | 216 | $\begin{array}{\|l\|} \hline \text { Nov. } 30, \\ 1936 \end{array}$ | C,7 | D,S | Rock curl; 5 foet steel casing et top. Reported never fails in drought. |
| 144 | 209.6 | do. | C, 7 | S | Hoek curb. 5 fiet steel casing at top. Reported rever fails in Erought. |
| 145 | 220 | d/ | 0,70 | D, S | 15 feet steel crsirg et top. Reportud nover fails ir drought. |
| 146 | 300 | d/ | c, W | D, S | Ropor ${ }^{+}$d ncvor fitils in drought. |

I, irrigetion; Ind, industrial; $\bar{D}$, domostic; $S$, stock; $\mathbb{N}$, not used.
d/ Water lovel reported.
e/ No water sample collect á for analysis.

Records of wells and springs in Comal County--Continued

| No. | Distance <br> from <br> Bulverde | Survey | Omer | Driller | Date com- <br> pleted | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { ft. } \end{array}\right\|$ | $\begin{gathered} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in. }) \end{gathered}$ | Height of measuring point above ground (ft.) a/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 147 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { northwest } \end{aligned}$ | J.Webb 237 | E.A.Laubach | -- | 01 a | 25 | 36 | 2.9 |
| 148 | $\begin{aligned} & 4 \text { miles } \\ & \text { northwest } \end{aligned}$ | S.Fish 413 | Aug. Scheel | Aug. Scheel | 1870 | 15 | 36 | 2 |
| 149 | do. | do. | do. | - Brown | 1892 | 318 | 6 | 0.8 |
| 150 | $\begin{aligned} & 4 \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{aligned} & \text { Henry Theis } \\ & 411 \frac{1}{2} \\ & \hline \end{aligned}$ | Mrs. Louise Hill | -- | 01 d | 480 | -- | 1 |
| 151 | $\begin{aligned} & 3 \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{aligned} & \text { A.Schlather } \\ & 656 \\ & \hline \end{aligned}$ | 0. Wehe | -- | 01d | 350 | -- | -- |
| 152 | do. | G.Bauer 764 | do. | -- | 01d | 110 | 6 | 0.4 |
| 153 | $\begin{aligned} & 4 \text { miles } \\ & \text { north } \end{aligned}$ | C.V.Haas 454 | J.A.Laubach | -- | 1896 | 60 | 6 | 0 |
| 154 | do. | do. | do. | -- | 010 | 25 | 36 | 1.3 |
| 155 | $\begin{aligned} & \text { 4 } \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | Aga. Hara 451 | George Fronne | -- | 01 d | 145 | 6 | 0.7 |
| 156 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { northeast } \end{aligned}$ | $\begin{gathered} \text { Theo. Miller } \\ 323 \\ \hline \end{gathered}$ | Gus feidner | - | 01d | 360 | 6 | 0.4 |
| $\begin{array}{r} 1568 \\ \hline \end{array}$ | $\begin{aligned} & 94 \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | Robert Bose | - | 1897 | 465 | 6 | -- |
| 1560 | do. | do. | do. | - | -- | Spring | -- | -- |
| 157 | $\begin{aligned} & 6 \text { miles } \\ & \text { northeast } \end{aligned}$ | $\begin{gathered} \hline \text { C. Weidner } \\ 848 \\ \hline \end{gathered}$ | $\begin{gathered} 0 . \mathrm{RaMcKin} \\ \text { ney } \end{gathered}$ | - | 01d | 635 | 6 | -- |
| 158 | $\begin{aligned} & 8 \frac{1}{2} \text { miles } \\ & \text { northeast } \end{aligned}$ | H. Pantermuehl 761 | $\begin{gathered} \text { W. F.Sumb } \\ \text { ling } \end{gathered}$ | -- | 01d | 383 | 6 | -- |
| 159 | $\begin{aligned} & 9 \text { miles } \\ & \text { northeast } \end{aligned}$ | $\begin{aligned} & \text { B. Smithson } \\ & 920 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { O+A.Dneppen } \\ \text { schmidt } \end{gathered}$ |  | O1d | 615 | 6 | -- |
| e/160 | do. | do. | do. | -- | 01d | 80 | 8 | 0.4 |
| 161 | $\begin{aligned} & 10 \text { miles } \\ & \text { northeast } \end{aligned}$ | $\begin{aligned} & \text { H.E.\&T.T. } \\ & \text { R.R.Co. } 925 \end{aligned}$ | do. | -- | 01d | -- | 6 | 0.5 |
| 162 | $\begin{aligned} & 9 \text { miles } \\ & \text { east } \end{aligned}$ | T. Alley 525 | do. | -- | -- | 350 | 6 | -- |
| e/163 | $\begin{aligned} & 9 \frac{\pi}{2} \text { miles } \\ & \text { northeast } \end{aligned}$ | F.Gass 858 | H. Comrads | -- | -- | 500 | 6 | -- |
| 164 | $\begin{aligned} & 8 \text { miles } \\ & \text { northeast } \end{aligned}$ | H. Pantermueh1 761 | B.Stapper | -- | 1882 | 480 | 6 | -- |
| 165 | $\begin{aligned} & 6 \text { miles } \\ & \text { northeast } \end{aligned}$ | J. Hering 319 | Ed. Adam | -- | 01d | 24 | 36 | 0 |
| 166 | do. | do. | do. | - Smith | 1885 | 600 | 6 | -- |
| 167 | $\begin{aligned} & 4 \text { miles } \\ & \text { east } \end{aligned}$ | $\begin{aligned} & \text { J. Birland } \\ & 438 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Clemens } \\ & \text { scholz } \end{aligned}$ | - | O1d | 245 | 6 | 0.4 |
| 168 | $\begin{aligned} & 3 \text { miles } \\ & \text { northeast } \end{aligned}$ | Dan Lewis 347 | sulius Bose | -- | 01d | 348 | 6 | 1.3 |
| 169 | do. | do. | Ben Bose | Otto Vogel | 1892 | 348 | 6 | -- |
| 170 | do. | $\text { J.Kaderdi. } 449$ | $\begin{gathered} \text { Erifin Sch- } \\ \text { neider } \\ \hline \end{gathered}$ | -- | 1890 | 414 | 6 | 0.7 |
| 171 | do. | C.Georg 432 | Irrs. Mattio Shelburne | -- | 1935 | 248 | 8 | 0.4. |


| No. | Tater Depth below measur- ing poi (feet) | Level <br> Date of <br> int ment | Pump and power b/ | Use of water c/ | Femarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 147: | $9.3 \mathrm{D}$ | $\begin{aligned} & \hline \text { Dec. }{ }^{7}, \\ & 1936 \end{aligned}$ | C, 7 | S | Dug well. Roek curb. Reported never fails in aroueht. |
| 148 | 9.0 | do. | C, F | N | Due vell. Rock curb; 15 feet rock casing at top. Reported dry pumping $1 \frac{1}{8}$ gallons a minute for 1 hour in |
| 149 | 263.5 | do. | $\begin{array}{r} 0,4,8 \\ 6,1 \frac{1}{2} \end{array}$ | D, S | 5 feet stecl casing at top. Reported dry seasons. never fails in drought. |
| 150 | $\begin{array}{r} 248.91 \mathrm{~N} \\ \hline 1 \end{array}$ | $\begin{aligned} & \text { Nov. } 21, \\ & 1936 \end{aligned}$ | $\begin{aligned} & \mathrm{C}, \mathrm{~W}, \mathrm{E}, \\ & \mathrm{G}, \mathrm{E} \end{aligned}$ |  | Reported nevcr fails in drought. |
| 151 | $\mathrm{N}_{2}$ | $\begin{aligned} & \text { Nov. } 27, \\ & 1936 \end{aligned}$ | C, 7 | D, S | DO. |
| 152 | 67.8 | do. | C. T | S | Soncreto curb; 5 feet galvanized steel casing at top. Reported never fails in drought. |
| 153 | 33.4 | do. | 0,7 | D, S | 2 foot galvanized stol casing at top. Reported nctor fails in drought. |
| 154 | 9.7 | do. | C | N | Dug rell. Roct curb. Reported never fails in drought. |
| 155 | $\begin{array}{r} 83.710 \\ 11 \\ \hline \end{array}$ | $\begin{aligned} & \text { Dec. 10, } \\ & 1936 \end{aligned}$ | C, 7 | D,S | Storl casing. Roported rater lcvel 130 feet in summer. geportud nev ir fails in drought. |
| 156 | 240 | $\begin{aligned} & \text { Dec. } 11, \\ & 1936 \end{aligned}$ | C, W | S | Stecl casirs. Reported never fails in drought. |
| 15 | 310 | d/ | C,G,3 | D,S | 14 feet sts cone at top. Reported never fails in drought. |
| 15 | Flows | $\begin{aligned} & \text { Dec. } 11, \\ & 1936 \end{aligned}$ | None | S | Roct basir. Estimatad flow, 15 gallons a minute from 1 opening in limestono. Reported nevor fails in dro- |
| 157 | -- | do. | $\begin{gathered} 0,7,8 \\ G, 3 \\ \hline \end{gathered}$ | D, S | 20 fect stea casing at top. Tater levil be- Lught. lon 30 C feet. Riported dry pumping 3 gallons a minutc |
| 158 | 244 | a/ | C, 7 | D, S | Steel casing. Keported̃ never fails in for 12 hours. |
| 159 | 1 | $\begin{aligned} & \text { Tiov. } 2, \\ & 1936 \end{aligned}$ | C,7 | $D, S$ | Sterl easing. Tater level below 30 feet. Reported never fails in crought. |
| 160 | 46.4 | do. | B,H | N | 3 feet galvanized steel casing at top. Reported never fails in drought. |
| 161 | 24 | do. | C, | D,S | Stsel casine. Reported never fails in drought. |
| 162 | -- 1 | $\begin{aligned} & \text { Jan. } 26, \\ & 1937 \end{aligned}$ | C,G,4 | D, S | Steel casing. Water level below 95 feet. Reported never fails in drought. |
| 163 | - | $\begin{aligned} & \hline \text { Nov. } 2, \\ & 1936 \\ & \hline \end{aligned}$ | C,G,6 | D, S | Steel casing. Tator levol below 300 feet. Reported nover fails in drought. |
| 164 | -- | do. | C, 7 | D, S | Stsel casing. Roporiod mater level bclow 300 feet. Reportcd never fails in drought. |
| 165 | 9.0 | Dec. 11, | C, H | S | Dug well. Hock casing. Reported flows in wet seasor; mater level about 20 feet in dry season. |
| 166 | -- |  | $\begin{gathered} \mathrm{C}, \mathrm{~F}, 8 \mathrm{~B} \\ \mathrm{G}, 4 \end{gathered}$ | D, S | Steel casing. liater level belor 300 feet. Water level reported 100 feet in wet seasons. Reported |
| 167 | 227 | б0. | C, 7 | D, S | 10 feet steel casing at top. never fails in droueht Reportcd never fails in drought. |
| 168 | 311 | d/ | C,G,3 | \|D, S | 20 feet steel casing at top. Reported nover fails in |
| $\overline{169}$ | 320 | a) | C, W, G | D, S | 100 feet stecl casing at top. Water reported from gray sendstone, $300-325$ feet. Reported never fails |
| 170 | 290 | $\begin{aligned} & \text { Dec. } 15, \\ & 1936 \end{aligned}$ | C,G | D, S | Stecl casing. Roported never fails in in drought. drought. |
| 171 | 228.9 | $\begin{aligned} & \text { Nov: } 16, \\ & 1936 \end{aligned}$ | B, H | D | 3 fout stc 11 casing at top. Tater ruported from sand stone, $244-246$ feet. Feported never fails in drought. |

-13-
Records of wells and springs in Comal County--Continued

| No. | Distance <br> from <br> Bulverde | Survey | Owmer | Drillex | Date com-pleted | $\left\lvert\, \begin{gathered} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { (ft.) } \end{gathered}\right.$ | $\begin{array}{\|c\|} \text { Dian- } \\ \text { eter } \\ \text { of } \\ \text { weli } \\ \text { (in. } \end{array}$ | Height of measuring point above ground (ft.) a/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 172 | $\begin{aligned} & 3 \text { miles } \\ & \text { north } \end{aligned}$ | T. Gothard 464 | V.T.Moos | -- | 018 | 320 | -- | 0.8 |
| 173 | $\begin{array}{\|l\|} \hline 2 \frac{1}{2} \text { miles } \\ \text { northwest } \end{array}$ | Edward Ryan 411 | $\begin{aligned} & \text { Edear Bro- } \\ & \text { mer } \end{aligned}$ | -- | 1890 | 100 | 6 | 0.6 |
| 174 | do. | W.H.Beard 415 | Nrs. K. K. Hohman | -- | 01d | 30 | 6 | 0.8 |
| 175 | $\begin{array}{\|l\|} \hline 3 \text { miles } \\ \text { northwest } \end{array}$ | do. | do. | -- | $1886$ | 315 | 6 | 0.5 |
| 176 | do. | do. | do. | -- | -* | Spring | -- | -- |
| 177 | $\begin{array}{\|l\|} \hline 3 \frac{1}{2} \text { miles } \\ \text { northwest } \\ \hline \end{array}$ | A. Holbrook 414 | I.T.Jones | -- | 010 | 300 | 6 | 0.5 |
| 178 | $\begin{aligned} & 4 \text { miles } \\ & \text { west } \end{aligned}$ | J. Tate 455 | H. Laubach | - Dietz | 1934 | 700 | 6 | 0.6 |
| 179 | $\begin{aligned} & 3 \text { miles } \\ & \text { west } \end{aligned}$ | J.M.Rivas 191 | 70.0.stahl | -- | 01 d | 308 | 6 | 0.4 |
| 180 | $\begin{aligned} & 1 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | G. Herrera 192 | Fhilip Lux | -- |  | 348 | 6 | -- |
| e/181 | $\begin{array}{\|l\|} \hline 1 \text { mile } \\ \text { southwest } \end{array}$ | do. | $\begin{gathered} \text { Mrs. Wm. } \\ \text { Scholz } \end{gathered}$ | -- | 1896 | 360 | 6 | -- |
| 182 | do. | $\overline{d o}$ | Aug. Scholz | -- | 1896 | 336 | 6 | -- |
| 183 | At Bulverd | do. | Aug. Wehe | - Vogues | O1d | 375 | 6 | 0.2 |
| 184 | $\begin{aligned} & 1 \text { mile } \\ & \text { east } \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { A. Gaytan } \\ 194 \\ \hline \end{gathered}$ | Chas.Willig | -- | 1914 | 300 | 6 | 1. |
| 185 | $\begin{aligned} & 1 \frac{1}{z} \text { miles } \\ & \text { east } \\ & \hline \end{aligned}$ | do. | $\begin{aligned} & \text { Herman } \\ & \text { Scholz } \\ & \hline \end{aligned}$ | -- | -- | 320 | 6 | -- |
|  | $\begin{aligned} & 2 \text { miles } \\ & \text { east } \\ & \hline \end{aligned}$ | do. | $\begin{gathered} \text { Mre. Fmilie } \\ \text { Stahl } \\ \hline \end{gathered}$ | -- | -- | 450 | 6 | -- |
| 6/ 187 | do. | do. | Adolph Kap- <br> pelmann | -- | 1899 | 444 | 6 | 0.8 |
| 188 | $\begin{aligned} & 3 \text { miles } \\ & \text { east } \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { M.B.Dykes } \\ 343 \\ \hline \end{gathered}$ | Adem Meyer | -- | 01 a | 90 | 6 | 0.3 |
| 189 | $\begin{aligned} & 4 \text { miles } \\ & \text { east } \end{aligned}$ | $\begin{gathered} \text { Richard Rul- } \\ \text { leage } 403 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Otto Hitz- } \\ \text { Ielder } \\ \hline \end{gathered}$ | -- | 1933 | 15 | -- | 0.7 |
| 190 | do. | do. | do. | -- |  | Spring | -- | -- |
| 191 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { east } \end{aligned}$ | $\begin{aligned} & \text { F.Ximenes } \\ & 346 \end{aligned}$ | do. | - Schwartz | 1900 | $381$ | 6 | - |
| 192 | $\begin{aligned} & 5 \frac{1}{2} \text { miles } \\ & \text { east } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Anna Vecker } \\ 678 \end{gathered}$ | $\begin{gathered} \text { T. B. Eth- } \\ \text { ridge } \end{gathered}$ | -- |  | Spring | -- | -- |
| 193 | do. | do. | do. | - | -- | 200 | 6 | 0.2 |
| 194 | $\begin{aligned} & 6 \text { miles } \\ & \text { east } \end{aligned}$ | do. | That Zeucher | -- | 1922 | 535 | 6 | -- |
| 195 | $\begin{aligned} & 9 \text { miles } \\ & \text { east } \end{aligned}$ | $\begin{gathered} \text { Franz Heimer } \\ 912 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Robert } \\ \text { Heimer } \end{gathered}$ | -- | 1926 | 178 | 6 | -- |

Emil J. Michal, Project Superintendert

| No. | Water Denth ID below measur ing poi (feet) | Level Date of measure- - ment int | Pump and power b/ | Use of water c/ | Remaris |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 772 | $262$ | $\begin{aligned} & \text { Not } \cdot 27,1 \\ & 1936 \end{aligned}$ | 0,7 | D, 5 | Teil measured while puping. Reported never fails in arought. |
| 173 | $86$ | $\begin{aligned} & \text { Tov. } 21, \\ & 1936 \end{aligned}$ | $\begin{gathered} C, 7,8 \\ G, 1 \frac{1}{8} \end{gathered}$ | D, S | Rock curb; 10 feet steel casing at top. Reported never fails in drought. |
| 174 | $11.6$ | $\begin{aligned} & \text { NOT. } 30, \\ & 1936 \\ & \hline \end{aligned}$ | None | N | 30 feet galvanized steel casing. Reported never fails in drought. |
| 175 | 247.6 | do. | $\begin{gathered} C, \mathrm{~V}, \& \mathrm{~B} \\ \mathrm{G}, 7 \end{gathered}$ | D, S | Steel casing. Reported never fails in drought. |
| $\overline{176}$ | Flows | do. | -- | D | Dovereć concreto basin. Estimated flow, li gallons a minute from I opening in limestone. Reported never |
| 177 | 264.7 | do. | C, 0 | id, S | Rock curb; stesl casing. Reported fails in drought. never fails in drought. |
| 178 | 244.2 | do. | C - | D, 5 | Soncrete curb; steel casing. Tatar reported from blue clay, $680-700$ feet. Reported never fails in drought. |
| $\overline{179}$ | 88.5 | $\begin{aligned} & \text { Nov. } 27 \\ & 1936 \end{aligned}$ | $\begin{gathered} \hline, W, \& \\ G,- \end{gathered}$ | D, S | Concrete curb; 35 feet steel casing at top. Reported pumps ary at 8 gellons a minute in 4 hours. Reported |
| 180 | 142 | do. | $\begin{gathered} C, \pi, \& \mid \\ 6,4 \end{gathered}$ | D, S | Wood block curb; 10 foct steell never fails in drought. casing at top. Moasured while pumping $\frac{1}{2}$ gallon a minute. Feported nevor fails in drought. |
| 181 | 250 | d/ | C, 7 | D,S | Stecl casins. Reported nover fails in drought. |
| 188 | 300 | d] | $\begin{array}{\|c\|} \hline C, 7,8 \\ G, 1 \frac{1}{3} \end{array}$ | D, S | Reported watir level 80 feet in wot season. Fatar raported from yellow clay at 40 feet, and from yellow sanc, $334-336$ feet. Roportod nevor fails in drought. |
| 183 | 218.0 | $\begin{aligned} & \text { Nov - 12, } \\ & 1936 \end{aligned}$ | C, 0 | 1D, 5 | 40 fect ster masing at top. Reported nevor fails in drought. |
| 184 | 214. | do. | C, ${ }^{\text {W }}$ | D, S | Sticl cesine. Reportod ncvar fails in drought. |
| 185 | 280 | d/ | 0, 0 | iD, S | St-el casing. Peport d nevir fails in drought. |
| 186 | -- | $\begin{aligned} & \text { Dec, } 15, \\ & 1936 \end{aligned}$ | C, Vi | D, S | 50 foct 6-inch st casing at top. Tater lovil below 250 fcet. Reportcd ncvor fails in drought. |
| 187 | -- | do. | $\begin{gathered} C, W, \& \\ G,- \end{gathered}$ | D, S | Stfel casing. Feported never fails in drought. |
| 188 | 49. | $\begin{aligned} & \text { Nov - } 15, \\ & 1936 \end{aligned}$ | 0, W | D, S | DO. |
| 189 | 11.0 | $\begin{aligned} & \text { Nov. 11, } \\ & 1936 \end{aligned}$ | C,W | D, S | Due well. Limstone and caliche, top to bottom. Reported never fails in drought. |
| 190 | flows | $\begin{aligned} & 1936 \\ & 1936 \end{aligned}$ | -- | S | Rock basin. Estirasted flow 10 gallons a mimute. Reported flow increases to 60 gallons a mirute in wet |
| 191 | 160 | d/ | C, 7 | D, S | 10 feet steel casing at top. Tater reported seasor. from sendstone, $375-375$. Reported never fails in dro- |
| 192 | Flows | $\begin{aligned} & \text { Nov . } 12, \\ & 1936 \end{aligned}$ | -- | S | Flows into pool from 1 under-water opening in ught. limestonc. |
| 193 | 153.9 | do. | C,G,6 | D, S | Steel casing. Feported never fails in drought. |
| 194 | 121 | $1935$ | $\begin{gathered} C, W, \& \\ G, 4 \end{gathered}$ | D,S | 6 feet steel casing at top. 400 fest of tubing reported necessary when well is pumped hoavily. Report- |
| 195 | 78 | d/ | $\begin{array}{r} \mathrm{C}, \frac{1,8}{}, \\ \mathrm{G}, 1 \frac{3}{4} \\ \hline \end{array}$ | $10,5$ |  |

$-15-$
Records of wells and springs in Comal County--Continued

| No, | ```Distance from New Braun- fels``` | Survey | Owner | Driller | Date con-pleted | $\left\{\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \left(f t_{e}\right) \end{array}\right.$ | $\begin{gathered} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { gin. } \end{gathered}$ | Height of measuring point above ground (ft.) a/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 201 | $\begin{aligned} & 11 \text { miles } \\ & \text { north } \\ & \hline \end{aligned}$ | John Johnson | $\begin{aligned} & \text { S.B.Craw } \\ & \text { ford } \end{aligned}$ | -- | -- | 300 | 6 | -- |
| 202 | $\begin{aligned} & 10 \mathrm{miles} \\ & \text { north } \\ & \hline \end{aligned}$ | B.F.Hanna 15 | H. Kanc | -- | 01 d | 50 | 36 | 1.2 |
| 203 | $\begin{aligned} & 9 \text { miles } \\ & \text { northwest } \end{aligned}$ | $\begin{aligned} & \text { Juan Cassil- } \\ & \text { Ias } 310 \end{aligned}$ | H.A.Conrad | -- |  | Spring | -- | -- |
| 204 | do. | $\begin{aligned} & \text { J.M.Tejerino } \\ & 349 \\ & \hline \end{aligned}$ | ao. | -- | 01 d | 180 | ${ }^{6}$ | -- |
| 205 | $\begin{aligned} & 9 \frac{1}{2} \text { miles } \\ & \text { northwest } \end{aligned}$ | $\begin{aligned} & \text { G.W.T\& } \& P_{1} \\ & \text { R.R.OO. } 839 \end{aligned}$ | Ed. Haag | -- | -- | 475 | 6 | 0.7 |
| 206 | $\begin{aligned} & 10 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{aligned} & \text { B.S.\&F.R.R. } \\ & \text { Co. } 817 \end{aligned}$ | A.I.Kabelmacher | -- | -- | 475 | 6 | -- |
| 207 | $\begin{aligned} & 13 \text { miles } \\ & \text { west } \end{aligned}$ | T. Losoya 571 | Ea. Reeh | -- | 01 d | 325 | -- | -- |
| e/208 | $\begin{aligned} & 12 \frac{1}{3} \text { miles } \\ & \text { west } \end{aligned}$ | do. | do. | -- | -- | 400 | 6 | 0.9 |
| 209 | $\begin{aligned} & 13 \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{gathered} \text { J.mhompson } \\ 758 \end{gathered}$ | do. | -- | 1916 | 390 | 6 | -- |
| 210 | $\begin{aligned} & 9 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{gathered} \text { Fred Gesche } \\ 779 \end{gathered}$ | $\begin{aligned} & \text { George } \\ & \text { Gesche } \end{aligned}$ | -- | 1929 | 320 | 6 | 0.4 |
| 211 | $\begin{aligned} & 9 \text { miles } \\ & \text { west } \end{aligned}$ | Theodor Koester 769 | $\begin{gathered} \text { Otto Ohl- } \\ \text { rich } \end{gathered}$ | -- | 1897 | 350 | 6 | 0.7 |
| 212 | $\begin{aligned} & 8 \text { miles } \\ & \text { northwest } \end{aligned}$ | $\begin{aligned} & \text { G.W.T.\& P. } \\ & \text { R.R.CO. } 837 \\ & \hline \end{aligned}$ | E. Herbst | -- | 0.1d | 425 | 6 | -* |
| 213 | $\begin{aligned} & 6 \frac{1}{2} \text { miles } \\ & \text { northwest } \end{aligned}$ | $\begin{aligned} & \text { A. M. Hol brook } \\ & 423 \\ & \hline \end{aligned}$ | B. Borchers | -- | 1902 | 402 | -- | -- |
| 214 | $\begin{aligned} & 6 \text { miles } \\ & \text { northwest } \end{aligned}$ | John Kneuper 587 | Paul Dietz | -- | Q1d | 300 | 6 | 0.2 |
| 215 | $\begin{aligned} & 5 \text { miles } \\ & \text { northwest } \end{aligned}$ | $\begin{aligned} & \hline \text { Christian Pape } \\ & 948 \end{aligned}$ | Jerome Schumenn | $\begin{aligned} & \text { Alox. } \\ & \text { Fabian } \end{aligned}$ | 1915 | 365 | 6 | -- |
| 216 | $\begin{aligned} & 5 \frac{1}{2} \text { miles } \\ & \text { northvest } \end{aligned}$ | Chas. Pape 947 | Alvin Jahns | - | 1906 | 300 | 6 | 0.7 |
| 217 | $\begin{array}{\|l\|} \hline 6 \text { miles } \\ \text { northreest } \end{array}$ | G.Carrosco 272 | H.D.Stronberg | -- |  | Spring | - | -- |
| e/218 | $\left\lvert\, \begin{aligned} & 7 \text { miles } \\ & \text { north } \end{aligned}\right.$ | G.F-Lamrence 8 | Dr. Wright | $\cdots$ | -- | 15 | 36 | 2.4 |
| 219 | $\begin{aligned} & 8 \text { miles } \\ & \text { north } \end{aligned}$ | Wesley Hughes 30 | E.T.Lackey | -- | 1911 | 500 | 6 | -- |
| 220 | do. | Wiley Hughes 29 | Albert Pfeuffer | -- | gld | 400 | 6 | -- |
| 221 | $\begin{aligned} & 4 \text { miles } \\ & \text { north } \end{aligned}$ | Juan M. de Veramendi | Albert Simon | -- | 1931 | 186 | 6 | -- |
| 222 | $\begin{aligned} & 4 \text { miles } \\ & \text { northrest } \end{aligned}$ | do. | Wm.Kraft | -- | 1906 | 190 | 6 | 0.5 |
| 223 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { northvest } \end{aligned}$ | T.Miller 266 | $\begin{gathered} \text { Albert } \\ \text { Kraft } \end{gathered}$ | -- | -- | 320 | 6 | 0.9 |
| 224 | do. | C.Taca 275 | $\begin{gathered} \text { Herman } \\ \text { Kraft } \\ \hline \end{gathered}$ | -- | Q1d | 256 | 6 | 10.8 |

a/ Measuring point was usually top of casing, top of pump base or top of well curb.
b/ A, air-lift; B, bucket; C, cylinder; Cf, centrifugal; G, gasoline engine; $H$, hand; $P$, public supply; $\mathbb{T}$, windmill; number indicates horsepower.

Finil T. Ficha, Project Superintendent

| No. | Water Lenin beior measu: ins po ifust | Level of acasure, int ment | Fump and power b/ | Use of mater c/ | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 201 |  | $1003$ | $0, \therefore$ | $\overline{D, S}$ | Steel casing. Пtported never fails in drought. |
| $\overline{202}$ | 43.9 | Hov. 4 | C. |  | Unncret carb. |
| 203 | Floms | $190-5$ | -- | D, S | Estimeted rio: ${ }^{\text {l }}$ gellons a minute from 2 oponings in limestonc. Rcported nevor fails in drought. |
| 20 | 1100 | d/ | c, V | D, 5 | Stcal cosing. Reportod $n$ ver fails in drought. |
| 205 | 193.1 | $\left\lvert\, \begin{aligned} & \text { oct. } 28, \\ & 1936 \end{aligned}\right.$ | C, | D,S | Reporteç never fails in drought. |
| 206 | +400 | d) | C,G,2 | D,S | Steol casing. neported slight drawdown pumping 6 gallons a minute for 24 hours. Reported never fails in |
| 207 | $156.6$ | $\begin{aligned} & \text { Dec. I, } \\ & 1936 \end{aligned}$ | IJone | N | Fo casins. drought. |
| 208 | 242.9 | do. | C, 7 | N | Steel essing. Wer reported from limestone, $375-400$ feet. Reported never fajls in arought. |
| 209 | 1360 | d/ | C, 7 | D,S | 250 fert steel casing at top. Reported never fails in drouch.. |
| $210$ | $256.1$ | $\begin{aligned} & \text { Nov. } 9, \\ & 1936 \end{aligned}$ | C, 7 | D, 5 | Stiol casing. Reported never feils in droueht. |
| 211 | 196.4 | do. | $\begin{array}{r} 0,77,8 \\ G, 1 \frac{1}{2} \end{array}$ | [D,S | Do. |
| 212 | 200 | d/ | C, 7 | D,S | Do. |
| 213 | 1332 | a/ | $\begin{gathered} \mathrm{C}, \mathrm{G}, \\ 1 \frac{1}{8} \end{gathered}$ | D,S | Rcported nevcr fails in drought. |
| 214 | 251.7 | $\begin{aligned} & \text { Nov. } 5, \\ & 1936 \end{aligned}$ | C, Vi | D, S | 20 feet stcel cising at top. Reported nevor fails in drought. |
| 215 | 285 | a/ | ©,77 | D, S | 10 feet steel casing at top. Reported never fails in drought. |
| 216 | 273 | $\begin{aligned} & \operatorname{lan} 18,18 \\ & 1937 \end{aligned}$ | C, 7 | D, S | Ste. 1 cesing. Feported rever fails in droupht. |
| 217 | Floms | $\begin{aligned} & \mathrm{Nov} \cdot 5, \\ & 1936 \end{aligned}$ | -- | N | Estime ted flow 1 g -llon minute from 1 oponing in limestone. ReDirted nev $r$ fails in drought. |
| 218 | 9.0 | $\begin{aligned} & \text { Oct. 22, } \\ & 1936 \end{aligned}$ | B, H | D, S | Dug well. Roci curb. Torik supply reportod. |
| 219 | -- | $\begin{aligned} & \text { Nov } \cdot 3, \\ & 1936 \end{aligned}$ | $\begin{aligned} & 0,7,8 \\ & G, 6 \end{aligned}$ | D,S | Stocl cesirg. ter lemil reportad below 300 foet. Reported nuter rails in arought. |
| 220 | -- | do. | A, G, 6 | D, S | Do. |
| 221 | 171 | d/ | C, 7 | D, S | Steel casing. Feported never fails in drought. |
| 225 | 161.5 | $\begin{aligned} & \hline \text { Oct. } 28, \\ & 1936 \end{aligned}$ | C, Fi | D, S | 134 foet steel casing et top. Reported never fails in drought. |
| 223 | 212 | $\begin{aligned} & \text { Dec. } 21, \\ & 1936 \end{aligned}$ | C, 7 | D,S | Steel casing. Feported nevfr fails in drought. |
| 224 | 230.7 | do. | C, | D, S | 3 feet galvanized steel casing at top. Reported never fails in drought. |

c/ I, irrigation; Ind, industrial; $D$, domestic; S, stock; N, not used.
(/ Water level reportod.
E/ No water sample collected for analysis.
-17-
Records of wells and springs in Comal County--Continued

| No. | Distance from Nem Braun- fels | Survey | Omer | Driller | $\left\|\begin{array}{l} \text { Date } \\ \text { com- } \\ \text { ple- } \\ \text { ted } \end{array}\right\|$ | $\left\lvert\, \begin{gathered} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { ft. }) \end{gathered}\right.$ | $\begin{array}{\|c} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in. }) \\ \hline \end{array}$ | $\begin{gathered} \text { Height of } \\ \text { measuring } \\ \text { point } \\ \text { above } \\ \text { ground } \\ \text { (rt.) a/ } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 225 | $\begin{aligned} & 4 \text { miles } \\ & \text { northwest } \end{aligned}$ | E. Hernandez 454 | T. H. Harborth Est. | - | 1895 | 265 | 6 | 1.1 |
| 226 | $\begin{aligned} & 4 \frac{1}{2} \text { milos } \\ & \text { northrocst } \end{aligned}$ | đo. | Fenry Feise | -- | 1923 | 290 | ¢ | 0.6 |
| 227 | $\begin{aligned} & 4 \frac{1}{2} \text { mil } \epsilon s \\ & \text { west } \end{aligned}$ | do. | H. Borchers | -- | 012 | 300 | 6 | -- |
| 229 | $\begin{aligned} & 5 \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{aligned} & \text { Lewis Sa- } \\ & \text { linas } 360 \end{aligned}$ | Edward Nomotny | -- | 012 | 325 | 6 | -- |
| 230 | do. | $\begin{aligned} & \text { Henrietta } \\ & \text { Boehme } 447 \end{aligned}$ | H. Doehne | -- | 01 d | 1,000 | 6 | -- |
| 231 | $\begin{aligned} & 6 \text { miles } \\ & \text { mest } \end{aligned}$ | $\begin{gathered} \text { Aug. Micheli } \\ 485 \end{gathered}$ | Gus Vogel | Fey \& Marshall | 1915 | 325 | 6 | -- |
| 232 | $\begin{aligned} & 6 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | H. Adams 652 | $\begin{gathered} \text { A.J.Cald- } \\ \text { mell } \end{gathered}$ |  | O1d | 250 | 6 | 0.4 |
| 233 | $\begin{aligned} & 7 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | C.Gesche 659 | Fichard Gesche | [- | 1902 | 313 | 6 | 0.9 |
|  |  |  |  |  |  |  |  |  |
| 234 | $\begin{aligned} & 8 \frac{1}{8} \text { miles } \\ & \text { west } \end{aligned}$ | Comal County <br> School Land Sur. 39 | $\begin{aligned} & \text { otto } \\ & 6 \quad \text { Ohlrich } \end{aligned}$ | -- | O1d | 265 | 6 | -- |
| 236 | $\begin{aligned} & 9 \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{gathered} \text { M.Gallardo } \\ 363 \end{gathered}$ | -- | -- | cid | -- | 36 | 1. |
| 237 | $\begin{aligned} & 10 \text { miles } \\ & \text { west } \end{aligned}$ | do. | Eugene Krause | $\cdots$ | -- | 275 | 6 | 1.4 |
| 2/238 | $\begin{aligned} & 9 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | Chas. H. Artzt 318 | Mrs. T. Hermant | -- | 1901 | 295 | 6 | -- |
| 239 | $\begin{aligned} & 11 \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{gathered} \text { F.Zuercher } \\ 679 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Krs. H.Hed- } \\ \text { wig } \\ \hline \end{gathered}$ | Fr.Hillert | 1932 | 45 | 6 | 0.6 |
| 240 | do. | C.Busch 441 | H.Blank | -- | 1926 | 340 | 6 | 0.8 |
| e/241 | $\begin{aligned} & 12 \text { miles } \\ & \text { west } \end{aligned}$ | Thomas Hand 390 | IIrs. A. Schncider | -- | 1925 | 322 | 6 | 0 |
| 242 | $\begin{aligned} & 13 \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{gathered} \text { J. Hamilton } \\ 90 \end{gathered}$ | $\begin{gathered} \text { Lavine Hoffit } \\ \text { man } \end{gathered}$ | -- | 01 C | -- | 6 | 0.3 |
| 243 | $\begin{aligned} & 12 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{gathered} \text { U.P. O. Han- } \\ \text { lon } 72 \\ \hline \end{gathered}$ | $\begin{gathered} \text { EdT. Ger- } \\ \text { hardt } \\ \hline \end{gathered}$ | -- | -- | 326 | 6 | -- |
| 244 | $\begin{aligned} & 13 \text { milcs } \\ & \text { west } \end{aligned}$ | do. | $\begin{gathered} \text { Linnie Bin- } \\ \text { scil } \\ \hline \end{gathered}$ | -- | -- | 240 | 8 | 0.8 |
| 245 | $\begin{aligned} & 13 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | V. Flores 70 | $\begin{array}{c\|} \hline \text { Lavine } \\ \text { Hoffman } \\ \hline \end{array}$ | - | 01d | -- | 6 | 0.6 |
| 246 | $\begin{aligned} & 13^{1} \text { miles } \\ & \text { southrest } \end{aligned}$ | V.Micheli 114 | $\begin{aligned} & \text { Henry } \\ & \quad \text { Schmidt } \end{aligned}$ | -- | 1880 | 50 | 36 | 1.5 |
| 247 | do. | do. | Henry Simeon | -- | 01d | 200 | 6 | 1.5 |
| 248 | $\begin{aligned} & 13 \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | $\begin{gathered} \text { A. B. Eurk- } \\ \text { hardt } \\ \hline \end{gathered}$ | Chès. Donoubauer | 1910 | 250 | 6 | 1. |
| 249 | $\begin{aligned} & 12 \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{aligned} & \hline \text { Geo. M. } \\ & \text { Doison } 96 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Edgar } \\ & \text { Burkhardt } \end{aligned}$ | - | Old | 180 | 6 | 0.5 |
| 250 | $\begin{array}{\|l} 10 \frac{1}{2} \text { miles } \\ \text { southwest } \end{array}$ | J.Hirsch- <br> lober 501 | Glen Wilson | -- | 01d | -- | 6 | -- |
| 251 | $\begin{aligned} & 7 \frac{1}{z} \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{aligned} & \hline \text { P. Hemandez } \\ & 422 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Schaeffer } \\ & \text { Bros, et et } \end{aligned}$ |  | 01d | 275 | 6 | 0.7 |

Emil J. Michel, Frojugt Superintendent

| No. | $\begin{array}{\|c\|} \hline \text { Vater } \\ \hline \text { Depth } \\ \text { below } \\ \text { measur } \\ \text { ing po } \\ \text { (feot) } \\ \hline \end{array}$ | Level Date of measure- ment int | Pump and power b/ | Use of Tater c/ | Renarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 225 | 188.1 | Oct. 28, | C, 1 | D, S, I | Stool casing. Reported used for irrigation in 1925. Roported $n$ vir feils in drought. |
| 226 | 259.7 | $\begin{aligned} & \mathrm{DEC.} 21, \\ & 1936 \end{aligned}$ | C, W | D, 5 | Stucl casing. Reported nutar fails in drought. |
| 227 | 258 | $\begin{aligned} & \text { Oct. } 28, \\ & 1936 \end{aligned}$ | C,G,3 | D, S | Stevl casing. Water reported in sandstone, 295-300 feet. Reported nevor fails in drought. |
| 229 | 300 | a/ | $\begin{gathered} C, W, \& \\ G, 6 \end{gathered}$ | D, S | Steel casing. Reported never fails in drought. |
| 230 | -- | $\begin{aligned} & \mathrm{Jan} \cdot 18, \\ & 1937 \end{aligned}$ | C, 7 | D, S | Steel casing. Water level below 300 feet. Reported never fails in drought. |
| 231 | -- | $\begin{aligned} & \text { Dec. 22, } \\ & 1936 \end{aligned}$ | C, ${ }^{\text {\% }}$ | D, S | 36 feet steel casing at top. Water level reported below 300 feet. Vater roported from sand and gravol, 300-325 foet. Reported nevor fails in drought. |
| 232 | 189.2 | $\begin{aligned} & \text { Jan. } 25, \\ & 1937 \end{aligned}$ | $\begin{gathered} \mathrm{C}, \mathrm{~T}_{2} 8 \\ \mathrm{G}, 4 \end{gathered}$ | D, S | Steol cesing. |
| $\overline{233}$ | 260.8 265.5 | $\begin{array}{\|l\|} \hline \text { Dec.16. } \\ 1936 \\ \text { Jan. 10-3 } \\ \hline \end{array}$ | $\begin{aligned} & C, 7,8 \\ & G, 6 \\ & 7 \end{aligned}$ | D, S | Stefl casing. Tater level reported by Penn Livingston, october 11, 1933, 267.4 feet below ground level. Reported never fails in drought. |
| 234 | 250 | d/ | $\begin{gathered} 0,7,84 \\ 6,4 \end{gathered}$ | D, S | Stesl osing. Roported slight drawdown pumping 10 gallons a minuts for 12 hours. Reported never fails |
| 236 | 24.3 | $\begin{aligned} & \text { Jan. } 21, \\ & 1937 \end{aligned}$ | C, 17 | D, S | Dug $\quad$ boll. Food block curb; rock easing. in drought. Rcportca n-v.r fails in drought. |
| 237 | 25, | $\begin{aligned} & 10 \mathrm{ct} \cdot 26, \\ & 1936 \\ & \hline \end{aligned}$ | C, G, ${ }_{\text {i }}$ | D, S | Stocl casing. Fator lavel measured by Penn Livinostor Oct. 11, 1933, 257.0 fuet below ground level. Reported |
| 238 | -- | do. | C,7 | D, S | Steel casine. Tater level $\frac{\text { never fails in drought. }}{\text { below } 200 \text { feet. Reported never fails in drought. }}$ |
| 239 | 20.6 | $\begin{array}{\|l\|} \hline \text { Nov. } 24, \\ 1936 \end{array}$ | C, 7 | I | 35 feet steel casing at top. Reported never fails in drought. |
| 240 | 297.5 | do. | C,7 | D, S | Steol casing. Reported never fails in drought. |
| 241 | 300 | d/ | C,G,- | D, 5 | 315 feet steel casing at top. Water reported from sendstone, 320-322 feet. Reported never fails in dro- |
| 242 | 231.4 | $\begin{aligned} & \text { Dec. } 17 \\ & 1936 \\ & \hline \end{aligned}$ | C, 7 | S | Stocl casing. Well measured while pumping. Re-Lught. ported never fails in drought. |
| 243 | ${ }^{--}$ | do. | C. 7 | D, S | Stucl casing. Tater lovol below 300 feet. Water levi measurcd by Penn Livingston, Oct. 11, 1933, 306.8 fect below ground levol. Roported never fails in drought. |
| 244 | 175.6 | do. | C, N | D, S | Steel casing. Well measured while pumping. Reported never fails in drought. |
| 245 | 151.8 | do. | C, 7 | D, S | Steel casing. Reported never fails in drought. |
| 246 | 42.4 | do. | C, | D, S | Dug well. Concrete curb; rock casing. Reported never fails in drought. |
| 247 | 131.7 | do. | C, W | D, S | Steel casing. Reported never feils in drought. |
| 248 | 149.0 | $\begin{aligned} & \text { oct. } 26, \\ & 1936 \\ & \hline \end{aligned}$ | C, 7 | D, S | Sterl cesing. Ifeasur thile pumping. Reported revtr fails in drought. |
| 249 | 169.5 | $\begin{aligned} & \text { Nov. } 24, \\ & 1936 \\ & \hline \end{aligned}$ | C, 6 | D, S | Do. |
| 250 | ${ }^{--}$ | $\begin{aligned} & \text { Dec. 19, } \\ & 1936 \end{aligned}$ | C.W | D,S | Stocl casing. ワetor levil below 242 feet. Reported nover ficils in drought. |
| 251 | 1244.2 | $\begin{aligned} & \text { Dec. } 18, \\ & 1936 \end{aligned}$ | $\begin{gathered} C, W, 80 \\ G, 3 \end{gathered}$ | D, S | Tater levil measurud by Penn Livingston, May 28, 1934, 241.4 below grouna level. Reported never fails in |

Records of wells and springs in Comal County--Continued

| No. | ```Distance from New Braun- fels``` | Survey | Orner | Driller | Date com-pleted | Depth of well (ft.) | $\left\lvert\, \begin{aligned} & \text { Diam- } \\ & \text { eter } \\ & o f \\ & \text { well } \\ & \text { (in. }) \end{aligned}\right.$ | Height of measuring point above ground (ft.) al |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 252 | $\begin{aligned} & 8 \text { miles } \\ & \text { west } \end{aligned}$ | C. Andreas 437 | Herman Vogel | $\begin{gathered} \text { Enil } \\ \text { Fey } \end{gathered}$ | 1916 | 300 | 6 | 0.9 |
| 253 | $\begin{aligned} & 7 \frac{1}{2} \text { miles } \\ & \text { west } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { V. Salinas } \\ & 393 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { C. Kreus- } \\ & \text { ler } \\ & \hline \end{aligned}$ | -- | 1900 | 300 | 6 | 0.6 |
| 254 | $\begin{aligned} & 8 \frac{1}{2} \text { miles } \\ & \text { mest } \end{aligned}$ | $\begin{aligned} & \text { C. Kreussier } \\ & 696 \end{aligned}$ | Erwin Voigt | Paul <br> Schumann | 1936 | 375 | 6 | -- |
| 255 | $\begin{aligned} & 7 \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{aligned} & \text { V. Salinas } \\ & 393 \end{aligned}$ | $\begin{aligned} & \text { Carl } \\ & \text { Kreusler } \end{aligned}$ | -- | 1919 | 330 | 6 | -- |
| 256 | $\begin{aligned} & 6 \text { miles } \\ & \text { mest } \end{aligned}$ | $\begin{aligned} & \text { Geo.Wlirich } \\ & 392 \end{aligned}$ | $\begin{aligned} & \text { Prs. ITn } \\ & \text { Hillort } \end{aligned}$ | -- | 1915 | 390 | 6 | -- |
| 258 | $\begin{aligned} & 5 \frac{1}{2} \text { miles } \\ & \text { west } \\ & \hline \end{aligned}$ | Jos. Thompson 751 | $\begin{aligned} & \text { Fritz } \\ & \quad \text { Kunkle } \\ & \hline \end{aligned}$ | -- | 1865 | 90 | 36 | 3.5 |
| 259 | do. | do. | do. | -- | 1906 | 420 | 6 | -- |
| 260 | do. | $\begin{aligned} & \text { Honry Doitz } \\ & 448 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Imil } \\ & \text { Deitz } \end{aligned}$ | -- | 1895 | 450 | 6 | -- |
| 261 | $\begin{aligned} & 5 \text { miles } \\ & \text { west } \end{aligned}$ | J.H.Hartmann 358 | $\begin{gathered} \text { 0.C. Breh- } \\ \text { mer } \\ \hline \end{gathered}$ | -- | 1898 | 304 | 6 | 0.5 |
| 262 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { west } \end{aligned}$ | $\begin{aligned} & \text { J.G.Brenier } \\ & 424 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Ed. C. Heid } \\ & \text { rich } \end{aligned}$ | -- | 1922 | 335 | 8 | -- |
| e/264 | $\begin{aligned} & 3 \frac{1}{2} \text { miles } \\ & \text { west } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Louis Salinas } \\ & 458 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Ed. Disch- } \\ \text { inger } \end{gathered}$ | $\begin{aligned} & \text { Frenk } \\ & \text { Hillert } \end{aligned}$ | 1925 | 305 | 6 | -- |
| 265 | $\begin{aligned} & 3 \text { miles } \\ & \text { wost } \end{aligned}$ | Tm Wockford 285 | R.f.Coreth | -- | -- | 290 | 8 | -- |
| 266 | $\begin{aligned} & 2 \text { milcs } \\ & \text { northriest } \end{aligned}$ | J.M. do Voramendi | A. Stranson | A.Sranson | 1936 | 152 | 6 | 1. |
| E268 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { north } \end{aligned}$ | $\begin{gathered} \text { Orilla Rus- } \\ \text { sel } 2 \\ \hline \end{gathered}$ | C.t.Conring | $\begin{aligned} & \text { C.A.Con- } \\ & \text { ring } \end{aligned}$ | 1900 | 175 | 6 | 0.4 |
| 269 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | $\begin{gathered} \text { Jack Kretz- } \\ \text { meir } \end{gathered}$ | Jack Hretzmeir | -- | 168 | 6 | 0.9 |
| 270 | do. | do. | Alvin. Kraft | - Owens | 1932 | 138 | 6 | 0.2 |
| 271 | do. | do. | Fobert Rabbe | - | 1901 | 140 | 6 | 0.6 |
| 272 | $\begin{aligned} & 5 \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | Bruno Raabe | -- | 01d | -- | 6 | 1.5 |
| 273 | $\begin{aligned} & 5 \frac{1}{2} \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | C.Conrad | -- | -- | 145 | 6 | 1.1 |
| 274 | $\begin{aligned} & 6 \text { miles } \\ & \text { northeast } \end{aligned}$ | $\begin{gathered} \text { Nancy Kemor } \\ 3 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Chas. Soech- } \\ \text { ting } \\ \hline \end{gathered}$ | -- | 1896 | 210 | 6 | 1. |
| 275 | do. | do. | Erich Resonthal | - | 1901 | 230 | 6 | -- |
| E/276 | do. | do. | $\begin{gathered} \text { Cherlio Orav } \\ \text { ford } \\ \hline \end{gathered}$ |  | 01 d | --- | $\overline{6}$ | -- |
| 277 | $\begin{aligned} & 6 \frac{1}{2} \text { milos } \\ & \text { mortheast } \end{aligned}$ | do. | $\begin{gathered} \text { Chris. Rosen } \\ \text { thal } \end{gathered}$ |  | 1898 | 212 | -- | 0 |
| 278 | $\begin{aligned} & 7 \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | Hancy Greune |  | 01d | 160 | 6 | 0.6 |



Records of wells and springs in Conal County--Continued

| No. | Distance from New Braunfels | Survey | Omer | Driller | Date com-pleted | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { (ft. } . \end{array}\right\|$ | Diameter of well (in.) | Height of measuring point above ground (ft.) a/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 279 | $\begin{aligned} & 8 \text { miles } \\ & \text { northeast } \end{aligned}$ | Samuel Graft Sr . | Wh.Posey | -- | 1891 | 160 | 6 | 0.9 |
| 280 | $\begin{array}{\|l\|} \hline \frac{1}{2} \text { miles } \\ \text { northeast } \end{array}$ | do. | Hiner <br> Docime | -- | 01d | 250 | 6 | 0.9 |
| 281 | $\begin{array}{\|l\|} \hline 9 \text { miles } \\ \text { northeast } \end{array}$ | do. | $\begin{gathered} \text { Travis } \mathrm{H} \\ \text { Tate } \end{gathered}$ | -- | -- | 152 | - | 0.6 |
| 282 | $\begin{aligned} & 10 \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | $\begin{gathered} \text { Phoonix Lifo } \\ \text { Ins. } 00.1 \end{gathered}$ | $0-$ | -- | 145 | 6 | 0.3 |
| 283 | $\begin{aligned} & 9 \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | $\begin{gathered} \text { Imil Preus- } \\ \text { ser } \end{gathered}$ | -- | -- | 330 | 6 | 2.1 |
| 284 | $\begin{aligned} & 7 \text { milos } \\ & \text { northeast } \end{aligned}$ | Antonio Meria Esnaurizar | $\begin{gathered} \hline \text { Csrl Kut- } \\ \text { schcr Est. } \end{gathered}$ | -- | 1930 | 50 | 36 | 1. |
| 285 | $\begin{aligned} & 5 \text { miles } \\ & \text { northeast } \end{aligned}$ | do. | H.Mittendorf | -- | 1925 | 32 | 36 | 0 |
| 287 | $\begin{aligned} & 3 \frac{1}{2} \text { milcs } \\ & \text { northoast } \end{aligned}$ | $\begin{aligned} & \text { Orilla Rus- } \\ & \text { sel } 2 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Arthur Bar- } \\ \text { tels } \\ \hline \end{gathered}$ | -- | -- | 65 | 36 | -- |
| 288 | $\begin{aligned} & 2 \frac{1}{2} \text { miles } \\ & \text { northeast } \end{aligned}$ | A.P.Fuquay 35 | Iman Wallhoefer | -- |  | \$pring | -- | -- |
| 289 | $\begin{aligned} & 2 \frac{1}{2} \text { milos } \\ & \text { north } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { J. M. de } \\ & \text { Veramondi } \end{aligned}$ | $\begin{gathered} \text { Dim. Dio- } \\ \text { mors } \end{gathered}$ | -- | 01d | 80 | 6 | 1.4 |
| 291 | do. | do. | Osear Praess | -- | - | 65 | 6 | 1.3 |
| 292 | do. | do. | Johohna Baetde | -- | 1912 | 85 | 6 | 1.4 |
| 293 | $\begin{aligned} & 1 \frac{1}{2} \text { miles } \\ & \text { northoest } \end{aligned}$ | do. | H. ${ }^{\text {a }}$ Landa | -- | -- | -- | 6 | 1.1 |
| 294 | $\begin{aligned} & 1 \text { mile } \\ & \text { norinwest } \end{aligned}$ | do. | City of New Braunfels | -- |  | \$pring | -- | -- |
| 295 | $\begin{aligned} & 1 \frac{1}{2} \text { miles } \\ & \text { northrest } \end{aligned}$ | do. | Mrs. Meta Penshom | -- | 01 d | 25 | 36 | 0.2 |
| 296 | $\begin{aligned} & 2 \frac{1}{m i l e s} \\ & \text { vest } \end{aligned}$ | do. | lex fitgelt | Paul Schumann | 1934 | 345 | 8 | 0.8 |
| 297 | $\begin{aligned} & 3 \text { miles } \\ & \text { west } \end{aligned}$ | do. | $\begin{gathered} \text { U.S.Gypsum } \\ \text { Co. } \end{gathered}$ | -- | -- | 125 | -- | 6 |
| 298 |  | S.A.\& M.G. R.R.CO: $599 \frac{1}{2}$ | Fi.R.Coreth | -- | -- | 275 | 6 | 1.5 |
| 299 | $\begin{aligned} & 5 \text { milos } \\ & \text { west } \end{aligned}$ | J.M. de Voramendi | Fin. Fey | Paul <br> Schumann | 01d | 89 | 6 | 1 |
| 300 | do. | do. | $\begin{aligned} & \text { Rolend } \\ & \text { Welsch } \end{aligned}$ | do. | 1934 | 372 | 6 | 1.6 |
| 304 | $\begin{aligned} & 6 \text { milcs } \\ & \text { southwest } \end{aligned}$ | F.Rodriquez 99 | $\begin{aligned} & \text { Cerl } \\ & \text { Kreuger } \end{aligned}$ | -- | 01d | 300 | 6 | 1.1 |
| 305 | $\begin{aligned} & 7 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | $\begin{gathered} \text { Josoph } \\ \text { Friesenhehn } \end{gathered}$ | -- | 1895 | 360 | 6 | 0 |
| 306 | $\begin{aligned} & 8 \text { miles } \\ & \text { southinest } \end{aligned}$ | $\begin{aligned} & \text { V. Bennett } \\ & 100 \end{aligned}$ | Oscar Jonas | -- | 1890 | 360 | 6 | 1.2 |

a/ Measuring point was usually top of casing, top of pump base or top of mell curb. A, air-lift; $B$, bucket; $C$, cylindcr; Cf, centrifugel; $G$, gasoline engine; $H$, hand; $P$, public supply; W, windmill; number indicates horsepower.

| No. | $\begin{aligned} & \text { Tater } \\ & \text { Depth } D \\ & \text { Revor } \\ & \text { necsur } \\ & \text { in poi } \\ & \text { ati } \end{aligned}$ | Level i Date of measure-- ment int | Pump and power | Use of water c/ | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $13.3$ | $\begin{aligned} & c \cdot 2 \mathrm{ct} \cdot 2 l \\ & -93 \mathrm{c} \end{aligned}$ | O, | , S | 10 feet stecl casing at top. Water reported from sanc stone, 158-160 foet. Deported nover fails in drought. |
|  | $33.10$ | $01.5$ | C, 7 | D, S | Stcel cesing. Reportcă ntvor foils in drought. |
| 81 | $23.1$ | $1$ | C, 7 | S | Reported ncver fails in drought. |
|  | $114.910$ | $120.21,$ | C, ! | D, S | Stoul casing. Reportid never fails in drought. |
| $\overline{283}$ | $\begin{array}{r} 14.2[8 \\ 1 \end{array}$ | $\begin{aligned} & \text { ven. } 5, \\ & 1937 \end{aligned}$ | C,77 | N | Do. |
| 284 | $33.31$ | $\begin{aligned} & \text { oct. } 21 \\ & 1936 \end{aligned}$ | C, W | D, S | Dug vell. Rock casing. Reported never fails in drousht. |
| 285 | 12.0 | do. | C, 7 | D, ${ }^{\text {S }}$ | Dug well. Brick curb and casing. Reported never fails in aroucht. |
| 287 | 48.6 | 0ct. 22, 1936 | C, 7 | D, S | Dug mell. Box curb; rock casing. Reported never fails in drought. |
| 288 | Floms | $\begin{aligned} & \text { Dec. } 30, \\ & 1936 \end{aligned}$ | W | D, S | Estimated flow, 60 gellons a minute from 1 opening in limestore. Reported novor feils ir drought. Locatod on east bink Gucdelupe River. |
| 289 | 48.5 | do. | $\begin{gathered} C, W, \& \\ G, 3 \end{gathered}$ | D, 5 | Stool crsing. Reported ncver fails in drought. |
| 291 | $52.4$ | $\begin{array}{\|l\|} \hline 0 \mathrm{ct}_{\mathrm{t}} \cdot 21 \\ 1936 \end{array}$ | C,7 | D, S |  |
| 232 | 55.310 | $00^{\frac{2}{4}} .28$ 1936 | C, 7 | I, S | Do. |
| 293 | 120.6 | $\begin{aligned} & \text { Doc. } 6 \text {, } \\ & 1936 \end{aligned}$ | C,7 | D, S |  |
| 294 | Flows | $\begin{array}{\|ll\|} \hline 0 \mathrm{ct} . & 27 \\ 1936 \end{array}$ | None | P | Maximum flow 157,000 and minimum flow 112,500 gellons a minute from 6 openings in limestons. Supplies city of Nert Braunfels. Knom as Comel Springs. |
| 295 | 8.3 | $\begin{array}{\|l\|} \hline \text { Dec. 22, } \\ 1936 \end{array}$ | C, 7 | D, S | Dug rell. Rock curb and cesine. Reported never feils in drought. |
| 296 | 53.3 D | $\begin{aligned} & \text { Dec. } 4, \\ & 1936 \end{aligned}$ | C, G, 4 | D, 5 | Steel casing. Water reported from gravel at 345 feet. Blue clay reportea, $50-345$ feet. Reported never fails |
| 297 | 51.1 | do. | None | N | Rock curb. Reported rever fils in. in drought. drought. Loc:t d inside groinds of plant. |
| 298 | 230 | $\begin{array}{\|l\|} \hline \text { Dec. } 16, \\ 1936 \end{array}$ | C, 7 | 5 | Steel casine. feter lefi mfasured by Ponn Livingston, Ney 25, 1934, 230.7 rest below ground level. Reported nevir zeils in drought. |
| 299 | $\overline{6 \epsilon .4}$ | $\begin{aligned} & \text { Dec. } 5, \\ & 1936 \end{aligned}$ | Q, W | 5 | Stucl casing. Export.a nevir fails in drought. |
| 300 | $\overline{33.7}$ | $1936$ | C, ${ }^{\text {星 }}$ | D, S | Steel ensine. 3 lue cloy reported, top to bottom; no water cbove $37 \%$ feet. Fater level measured by Penn Livineston, Hay 25, 1934, 38.3 feet below ground ... .. .. level. Reported never fails in drought. |
| 304 | 20.5 | $\begin{aligned} & \text { Dee. } 16, \\ & 1936 \\ & \hline \end{aligned}$ | C,77 | D, S | Concrete curb; 15 feet stoel cesing at top. Reported rever fails in drought. |
| 305 | 56 | $\begin{aligned} & \text { Dec. } 18, \\ & 1936 \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathrm{C}, \mathrm{~W}, 2 \\ \mathrm{G}, 2 \end{gathered}$ | D*S | 40 foet relvenized steol casing st top. Strong supply reported. |
| 306 | 68.4 | do. | C, W | D,S | Stocl casing. Reportod never fails in drought. |

c/ I, irrigetion; Ind, industrial; $D$, domestic; $S$, stock; $N$, not uscd.
$\bar{a} /$ Wetor lovel reported.
c/ No meter semple collected for malysis.

| No． | Distance from New Braun－ fels | Survey | Owner | Driller | Date com－ ple－ ted | $\begin{array}{\|c} \text { Depth } \\ \text { of } \\ \text { weli } \\ (\mathrm{ft.}) \end{array}$ | $\left\|\begin{array}{c} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in. }) \end{array}\right\|$ | Height of measuring point above ground （ft．）a／ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 307 | $\begin{aligned} & \text { 8咅 miles } \\ & \text { southwest } \end{aligned}$ | $\begin{gathered} \text { V. Bennett } \\ 100 \end{gathered}$ | $\begin{aligned} & \text { Adolph } \\ & \text { Mueller } \end{aligned}$ | －－ | 1911 | 160 | 6 | 0.9 |
| 308 | do． | J．Nelson 97 | Vesley <br> Hierholzer | $-$ | O1d | 117 | 6 | 0.7 |
| 309 | $\begin{aligned} & 9 \text { miles } \\ & \text { southwest } \end{aligned}$ | do． | Ben Eiley | －－ | －－ | 125 | 6 | 0 |
| 311 | $\begin{aligned} & 9 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{gathered} \text { E. Woodruff } \\ 95 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Robert } \\ & \text { Hierholzon } \end{aligned}$ | －－ | 01 d | 130 | 6 | 0.7 |
| 312 | $\begin{aligned} & 10 \text { miles } \\ & \text { southwest } \end{aligned}$ | do． | ．O．K． Klacmer | $-$ | 01 d | 109 | 6 | 1.1 |
| 313 | $\begin{aligned} & 10 \frac{1}{2} \text { miles } \\ & \text { southrest } \end{aligned}$ | $\begin{aligned} & \text { J. de Cardova } \\ & 514 \end{aligned}$ | $\begin{gathered} \text { R.P Schnei- } \\ \text { der } \end{gathered}$ | －－ | 1928 | 192 | 6 | 0.6 |
| 314 | $\begin{aligned} & 11 \text { miles } \\ & \text { southrest } \end{aligned}$ | $\begin{gathered} \text { Geo. M. Dol- } \\ \text { son } 96 \end{gathered}$ | Aoc．fiedel | －－ | 1925 | 225 | 6 | 0.2 |
| 315 | $\begin{aligned} & 12 \text { miles } \\ & \text { southwest } \end{aligned}$ | do． | do． | －－ | 01d | 306 | 5 | 0 |
| 316 | $\begin{aligned} & 13 \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{aligned} & \text { T. Herrera } \\ & 68 \\ & \hline \end{aligned}$ | Joe Gleitz | －－ | －－ | 310 | 6 | 1.5 |
| 317 | do． | do． | do． | －－ | 01d | 200 | 6 | 0.6 |
| 318 | $\begin{aligned} & 11 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | do． | Th．Tonne | Spring \＆ Donnerbaue | $1910$ | 476 | 6 | 1.1 |
| 319 | $\begin{aligned} & 9 \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{aligned} & \text { R. Garza } \\ & 98 \end{aligned}$ | Joe Vogel | －－ | －－ | 350 | 6 | 1.3 |
| 320 | do． | do． | J．C．Stigall | －－ | 012 | 400 | 6 | 0.8 |
| e／321 | $\begin{aligned} & 8 \frac{1}{2} \text { miles } \\ & \text { southrost } \end{aligned}$ | do． | F．Schnab | －－ | Old | 150 | 6 | 1.1 |
| 322 | do． | do． | Valentine Schwab | －－ | －－ | 38 | 36 | 2.1 |
| 323 | $\begin{aligned} & 8 \text { miles } \\ & \text { southiwest } \end{aligned}$ | do． | $\begin{aligned} & \text { Albert } \\ & \text { Kechnor } \end{aligned}$ | －－ | 1911 | 130 | 6 | 0.7 |
| 325 | $\begin{aligned} & 7 \frac{1}{2} \text { miles } \\ & \text { southrost } \end{aligned}$ | $\begin{gathered} \text { F.Rodriquez } \\ 99 \\ \hline \end{gathered}$ | Bruno Schrab | －－ | 1916 | 150 | 6 | 1 |
| 326 | do． | do． | 酮。 Schaeffer | -- | －－ | 300 | 4 | I． 1 |
| 327 | $\begin{aligned} & \text { 5T miles } \\ & \text { southwest } \end{aligned}$ | do． | I．E： Kreupper | $\begin{aligned} & \text { Hgnry } \\ & \text { Spring } \\ & \hline \end{aligned}$ | 1911 | 84 | 6 | 0.5 |
| 328 | $\begin{aligned} & 7 \text { miles } \\ & \text { southrest } \end{aligned}$ | $\begin{gathered} \text { C.In. Gahagan } \\ 258 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Alvin } \\ & \text { Schecffer } \end{aligned}$ | － | 1900 | 360 | 6 | 0.4 |
| 329 | $\begin{aligned} & 6 \frac{1}{2} \text { miles } \\ & \text { southorest } \end{aligned}$ | do． | Gus kleemer | －－ | 1914 | 131 | 6 | 1.1 |
| 330 | $\begin{aligned} & 7 \text { miles } \\ & \text { southrest } \end{aligned}$ | $\begin{gathered} \text { F•Rodriquaz } \\ 99 \\ \hline \end{gathered}$ | Ed．Solm | －－ | －－ | 300 | －－ | 0.7 |
| 332 | $\begin{aligned} & 6 \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{gathered} \text { J. Noyes } \\ 259 \\ \hline \end{gathered}$ | Ben Jahn | －－ | Old | 395 | 6 | 1.2 |
| 333 | do． | $\begin{gathered} \text { F.Rodriquaz } \\ 99 \\ \hline \end{gathered}$ | O．Penshorn | －－ | Old | 428 | 6 | 0.8 |

Emil J. Michal, Projoct Superintendent

| No. | $\frac{\text { Tater }}{\text { Depth }}$ <br> belon me <br> measur- <br> ing poin <br> (feet) | Level Date of measure- ment int | Pump and power b/ | Use of water c/ | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 307 | 37.71 | $\begin{aligned} & \text { Dec. } 18, \\ & 1936 \end{aligned}$ | C, ${ }^{\text {W }}$ | D,S | 20 feet galvanized steel casing at top. Reported never fails in drought. |
| 308 | $81.6 \begin{gathered} D \\ 1 \end{gathered}$ | $\begin{aligned} & \text { Dec. 19, } \\ & 1936 \end{aligned}$ | C, ${ }^{\text {a }}$ | D, S | Food biock curb; 40 feet stuel casing at top. Reportcd rever fails in drought. |
| 305 | 79.4 | do. | C, 7 | D,S | Concrete curb; steal casing. Reportod never fails in drought. |
| 311 | 125.7 | do. | C,7 | D, S | Sted casing. Reported never fails ir drought. |
| 312 | 81.20 | $\begin{aligned} & \text { Oct. } 26, \\ & 1936 \end{aligned}$ | C, V/ | D, S | Do. |
| 313 | 119.1 | do. | C, 7 | D, S | Stel casins. Water reported from sand at 145 feet, and sandston., 190-192 feet. Reported never fails in |
| 314 | ${ }^{133.2}{ }^{\text {d }}$ | $\begin{aligned} & \text { Dec. } 17, \\ & 1936 \\ & \hline \end{aligned}$ | C, 7 | D,S | Concrete cint; sterl casing. Reported drought. nevor fails in droveht. |
| $\overline{315}$ | 135 | do. | C, 7 | D,S | 200 foet strel casine at top. Water level measurcd by Ponn Livingston, May 24, 1934, 141.5 feot below ground 1.vel. Reportod never fails in drought. |
| 316 | 101.7 ${ }^{1}$ | $\begin{aligned} & \text { Dec. } 12, \\ & 1936 \end{aligned}$ | 0, 7 | D:S | Steel casing. Water level measured by Penn Livineston, Oct. 2, 1933, 108.3 feet below ground level. Reported |
| 317 | 74.6 | do. | None | N | Steel casint: ater level measured by Ponn Livingston, oct. $2,1933,76.2$ feet |
| 318 | 155 | $\begin{aligned} & \text { Nov. } 24, \\ & 1936 \end{aligned}$ | C, w | D,S | 20 feet steel cosing at top, fin- belor ground level. ish 450 feet $4 \frac{1}{z}$-inch steel casing. Measured while pumpire. Reported never fails in drought. |
| 319 | 128.6 | $\begin{aligned} & \text { Dec. } 3, \\ & 1936 \end{aligned}$ | C, ${ }^{\text {a }}$ | S | Tood block curb; steel casing. Tater level measured by Pemn Livingston, May 24, 1934, 134 feet below ground level. Reported never fails in drought. |
| 320 | 63.8 | $\begin{aligned} & \text { NOT. } 24, \\ & 1936 \end{aligned}$ | C, W | D, 5 | Steel casing. Reported never fails in drought. |
| 321 | 71.1 | $\begin{aligned} & \text { Dec. 16, } \\ & 1936 \end{aligned}$ | None | N | Tile casing. Weak supply reported. Hydrogen sulphide odor. |
| 32.2 | 24.1 | do. | C, ${ }^{77}$ | D,S | Dug weil. Concrete curb; rock casing. Reported never fails in drought. |
| 323 | 69.3 | $\begin{aligned} & \text { Dec. 1, } \\ & 1936 \end{aligned}$ | C, W | D, ${ }^{\text {S }}$ | 50 fect stisel casing at top. Rcported never fails in drought. |
| 325 | 17.0 | $\begin{aligned} & \text { Dec. } 18 \text {, } \\ & 1936 \end{aligned}$ | C, G, 4 | D, 5 | 20 feet stenl cosing at top. Water reported from lime stone, $138-142$ feet. Reported never fails in drought. |
| 326 | 29.3 | $\begin{aligned} & \text { Dec. } 3, \\ & 1936 \end{aligned}$ | C, W | D, S | Food block curb; starl casing. Reported never fails in drought. |
| 327 | 26.0 | $\begin{aligned} & \text { Oct. } 26, \\ & 1936 \end{aligned}$ | C,V] | D, S | 22 feet steal casing at top. Water reported from sand stone, 85-84 fivet. Reported never fails in drought. |
| $\overline{328}$ | 32.3 | $\begin{aligned} & \text { Doc. 16, } \\ & 1936 \end{aligned}$ | C, | D,S | Wood curb; steul casing. Reported never fails in drought. |
| 329 | 47.8 | $\begin{aligned} & \text { Dec. } 4, \\ & 1936 \end{aligned}$ | C, Vi | 5 | Steci casing Feported never fails in drought. |
| $\overline{330}$ | 21.1 | $\begin{aligned} & \text { Dec. 3, } \\ & 1936 \end{aligned}$ | C, W | D,S | Reported netry fails in drought. |
| 332 | 80.6 | $\begin{aligned} & \text { Doc. } 18, \\ & 1936 \end{aligned}$ | C, ${ }^{\text {w }}$ | S | Steel casing. Water level measured by Penn Livingston May 28, 1934, 82.9 foot below ground level. Reportod |
| $\overline{333}$ | 30.3 | $\begin{aligned} & \text { Dec. } 3, \\ & 1936 \end{aligned}$ | C, 7 | D, S | Stecl casine. Fatcr level never fails in drought. measured by Penn Livingston, May 28, 1934, 53 foet below ground lovel. Reported nover fails in drought. |

-25-
Records of wells and sprines in Comel County--Continued

| No. | ```Distance from New Braun- fels``` | Survey | Omer | Driller | Date com-pleted | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \left(f^{\prime} t .\right) \end{array}\right\|$ | $\begin{gathered} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in. }) \\ \hline \end{gathered}$ | Height of measuring point above ground (st.) a |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 336 | $\begin{aligned} & 5 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{gathered} \text { F.Rodriquez } \\ 99 \\ \hline \end{gathered}$ | A.TV.Feick | Paul Schumann | 01 d | 700 | 6 | 0.7 |
| 337 | $\begin{array}{\|l\|} \hline 5 \text { miles } \\ \text { southwiest } \end{array}$ | John Thompson | Tim.Stratemann | - | Old | -- | -- | 0.5 |
| 338 | do. | do. | do. | -- | 010 | -- | 36 | 1.6 |
| 339 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | Otto Reinarz | -- | O1d | 465 | 3 | -- |
| 341 | do. | $\begin{gathered} \text { J.if. de Vera- } \\ \text { mendi } \\ \hline \end{gathered}$ | Otto Feick | -- | 01d | 200 | 6 | -- |
| 342 | do. | do. | W.E.F. Eilers | -- | Old | 240 | 6 | 1 |
| 343 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { west } \\ & \hline \end{aligned}$ | do. | Otto Feick | $\begin{aligned} & \text { Paul } \\ & \text { Schumann } \end{aligned}$ | 1934 | 91 | 6 | -- |
| 344 | $\begin{aligned} & 3 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | A. Triesch | -- | 1898 | 90 | 6 | 1.5 |
| 346 | $\begin{aligned} & 2 \frac{1}{\text { miles }} \\ & \text { wost } \end{aligned}$ | do. | A.H. Gemer | -- | 1900 | 148 | 6 | 2.1 |
| 347 | $\begin{aligned} & 2 \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | Theo Docrr | -- | O1d | 503 | 6 | 0.7 |
| 348 | $\begin{aligned} & 2 \text { miles } \\ & \text { west } \end{aligned}$ | do. | $\begin{gathered} \text { Hy } \text { Moellex } \\ \& 0 . \end{gathered}$ | - |  | Spring | -- | 0 |
| 349 | $\begin{aligned} & 1 \frac{1}{2} \text { milos } \\ & \text { most } \end{aligned}$ | do. | Max 7alther | -- | 1898 | 31 | 36 | 0.5 |
| 352 | $\begin{aligned} & 1 \frac{1}{2} \text { milvs } \\ & \text { cast } \end{aligned}$ | $\begin{aligned} & \text { AM.Esnau- } \\ & \text { rizar } \end{aligned}$ | Erwin Soofjo | -- | O1d | 427 | 6 | 0 |
| 355 | $\begin{aligned} & 2 \text { milos } \\ & \text { cast } \\ & \hline \end{aligned}$ | do. | Ad. Tausch | -- | 01 d | -- | 36 | 1.4 |
| 356 | do. | do. | Fritz Neuse | $\begin{gathered} \text { Eritz } \\ \text { Neuse } \\ \hline \end{gathered}$ | 1915 | 24 | 36 | 0.7 |
| 359 | $\begin{aligned} & 3 \mathrm{milcs} \\ & \text { oast } \end{aligned}$ | do. | $\begin{gathered} \text { Albert } \\ \text { Soefje } \end{gathered}$ | -- | 1895 | 57 | 36 | 0.4 |
| 360 | $\begin{aligned} & 5 \frac{7}{2} \text { miles } \\ & \text { east } \end{aligned}$ | do. | $\begin{aligned} & \text { H. Kicker- } \\ & \text { itz } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { H. Kick- } \\ \text { oritz } \end{gathered}$ | 1933 | 36 | 6 | 0.2 |
| 361 | $\begin{aligned} & 4 \frac{1}{2} \text { milcs } \\ & \text { cast } \\ & \hline \end{aligned}$ | do. | Emma Rose | -- | -- | 32 | 60 | 0.2 |
| 362 | $\begin{aligned} & 4 \text { milos } \\ & \text { east } \end{aligned}$ | do. | R. Kraft | -- | 01d | 40 | 36 | 3.2 |
| 363 | $\begin{aligned} & 3 \text { miles } \\ & \text { oast } \end{aligned}$ | do. | August Timmormenn | $\mathrm{Sr}$ | 018 | 50 | 36 | 3.1 |
| 364 | do. | do. | E. W-Musilar | -- | 1918 | 35 | 36 | 1.4 |
| 365 | $\begin{aligned} & 3^{\frac{1}{2} \text { miles }} \\ & \text { southeast } \end{aligned}$ | do. | B. Bartlos | -- | -- | Spring | -- | -- |
| 367 | $\begin{aligned} & 2 \frac{1}{2} \text { milos } \\ & \text { cast } \\ & \hline \end{aligned}$ | do. | $\begin{aligned} & \text { Mrs. H. } \\ & \text { Osikers } \end{aligned}$ | -- | 01 d | 40 | 36 | 2.2 |
| 368 | $\begin{aligned} & 2 \text { milos } \\ & \text { east } \\ & \hline \end{aligned}$ | do. | D. Themer | -- | 01d | 30 | 60 | 0.5 |
| 372 | $\begin{aligned} & 3 \frac{1}{2} \text { milcs } \\ & \text { southwest } \end{aligned}$ | John Thomp- son | $\begin{gathered} \text { Hcnry } \\ \text { Voight } \end{gathered}$ | -- | 1898 | 510 | 6 | 2.2 |
| 373 | do. | do. | L. Jentsch | -- | old | 485 | 6 | 1.5 |

Emil J. Michal, Froject Superintendent

| No. | Water Depth betow measur ing po (feet) | Level Date of measure int ment | Pump and power b/ | Use of water c/ | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 336 | $77.8$ | $\begin{aligned} & \text { cet. } 26 \\ & 1936 \end{aligned}$ | C, | D, S | Steel casing. Wator level measured by Ponn Livingstor May 28, 1934, 69.? feet below ground level. Roported |
| $\overline{357}$ | 60.8 | $\begin{aligned} & \operatorname{Jan} \cdot 6,^{1937} \end{aligned}$ | C, 7 | S | Concrete curb; no cosing. Lnever fails in droucht. Reported ncvir fails in drought. |
| 338 | 3.4 | do. | C, H | D | Dug well. Concrete curb; brick casing. Reportod never fails in droupht. |
| $\overline{539}$ | $7.0$ | $\begin{aligned} & \text { Dec. } 3, \\ & 11936{ }^{3} \end{aligned}$ | None | N | Feported never foils in drought. |
| 341 | 35 | d/ | C, | S | Stacl casing. Reported never fails in drought |
| $\overline{342}$ | 26 | $\begin{aligned} & \text { Oct } \cdot 27, \\ & 1936 \end{aligned}$ | C.7 | D, S | Do. |
| 343 | 86 | $\begin{gathered} \alpha / \text { kpril } \\ 1934 \end{gathered}$ | C,G,2 | S | 10 fect steel casing at top. Rock reported, top to bottom. Reported never fails in drought. |
| 344 | 29.4 | $\begin{aligned} & \text { Nov. } 9, \\ & 1936 \end{aligned}$ | C, W | D, S | Wood block curb; 40 fectstocl easing at t?p. R(p)rted nover fails in drought. |
| $\overline{346}$ | 2.0 | $\text { Dec. }{ }^{4,}$ | C, Wi | D, S | Concrate curb; 48 fect steel casing, at top. Flows at tines. Wetur reported from bluc clay, 144-148 feot. Reported nower fiaile in drought. |
| 347 | 10.8 | do. | C, 7 | D, S | Conercte curb; steel casing. Reported ncver fails in drought. |
| 348 | 3 | do. | $\begin{array}{r} C f, \& \\ \mathrm{G}_{2}- \\ \hline \end{array}$ | D, S | Sink 60 fect deep. Spring flowimg 50 gallons a mirutc roported 45 feet below surface. Reported |
| 349 | 28.9 | $\begin{array}{ll} \hline 0 \operatorname{ct} . & 27 \\ 1936 \end{array}$ | C, W | D,S | Dug $\quad$ mill. Brick casing. Reported notur fails in drought. |
| 352 | 31 | d/ | 0, Wid | S | Stocl casing. Reported nevir fails in drought. |
| $\overline{355}$ | 22.6 | $\begin{aligned} & \operatorname{Jar}_{1} \cdot 6, \\ & 1937 \end{aligned}$ | C.W | D, S | Dug well. Rock curbing and casing. Reported never fails in drought. |
| $\overline{356}$ | 25.1 | $\begin{aligned} & \text { Nov. 18, } \\ & 1936 \end{aligned}$ | C, W | D, S | Dug well. Concrete curb; brick casing. Reported never feils in drought. |
| 259 | 52.8 | $\begin{array}{\|ll\|} \hline \text { Oct. } & 20, \\ 1936 \end{array}$ | C, V7 | D, S | Dug well. Rock casing. Reported never fails in drought. |
| $\overline{360}$ | 28.2 | $\begin{array}{\|l\|} \hline \text { Nov. } 18, \\ 1936 \end{array}$ | C, H | N | 5 feet galvanized steel casing at top. Reported never fails in drought. |
| $\overline{361}$ | 33.9 | do. | C, 7 | D, S | Dug mell. Brick c"sing. Reported never fails in drought. |
| $\overline{362}$ | 37.9 | do. | B, H | D, S | Dug well. Donerete curb and casing. Reported never fails in drought. |
| $\overline{363}$ | 44.4 | do. | C,7 | D,S | Dug well. Rock curb and casing. Reported never fails in drought. |
| 364 | 36 | $\begin{array}{\|l\|} \hline \text { oct. 10, } \\ 1936 \end{array}$ | C, ${ }^{\text {T }}$ | $\begin{gathered} D, S, \\ I \\ \hline \end{gathered}$ | Dug well. Concrete curb. Reported never fails in drought. |
| 365 | Florts | $\begin{aligned} & \text { Nov. } 11, \\ & 1936 \end{aligned}$ | None | Drs | Estimated flow, 15 gallons a minute from 3 openings in gravel bed. Reported never fails in drought. |
| $\overline{367}$ | 36.3 | $\begin{aligned} & \text { Oct. } 10, \\ & 1936 \end{aligned}$ | C, 7 | D, S | Dug well. Brick casing. Reported never fails in drought. |
| 368 | 26.1 | do. | c, ${ }^{1}$ | D, S | Dug well. Reported never fails in drought. |
| 372 | 76 | $\begin{array}{\|l\|} \hline \text { Oct } . \\ 1936 \end{array}$ | C, 7 | S | 500 feet stecl casing at top, Water reported from sand stone at 200 and 510 feet. Reported never fails |
| 373 | 17.9 | $\begin{array}{\|ll\|} \hline \text { Dec. } & 4 \\ 1936 & \\ \hline \end{array}$ | C,V | 5 | Stcel casing. Roported ncvor fails in drought. |

-27-
Records of mells and springs in Comal County--Continued

| No. | ```Distance from New Braun- fels``` | Survey | Omer | Driller | $\begin{array}{\|l\|} \text { Date } \\ \text { com- } \\ \text { ple- } \\ \text { teda } \end{array}$ | $\left\|\begin{array}{c} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { (ft.) } \end{array}\right\|$ | $\begin{array}{\|l} \text { Diam- } \\ \text { eter } \\ \text { of } \\ \text { well } \\ \text { (in.) } \\ \hline \end{array}$ | Height of measuring point above ground (ft.) a/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 374 | $\begin{aligned} & 4 \text { miles } \\ & \text { southwest } \end{aligned}$ | $\begin{gathered} \text { John Thomp- } \\ \text { son } \end{gathered}$ | Gus Reinerz | -- | -- | 500 | 6 | 0.9 |
| 375 | $\begin{aligned} & 4 \frac{1}{2} \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | F.A.Burket | -- | O1a | 450 | 6 | 0.6 |
| 377 | $\begin{aligned} & 5 \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | $\qquad$ |  | 1924 | 498 | 6 | 0 |
| 378 | $\begin{aligned} & 4 \text { miles } \\ & \text { southwest } \end{aligned}$ | do. | J.A.Wetz | \| -- | 01d | 542 | 6 | 1.4 |
| a/ Measuring point was usually top of casing, top of pump base or top of well curb. B/ A, air-lift; B, bucket; C, cylinder; Cf, centrifugal; G, gasoline engine; H, hand; $P$, public supply; W, windmill; number indicates horsepower. |  |  |  |  |  |  |  |  |

Emil J. Michel, Project Superintendent

| No. $=$ | Water Level Depth Date of below reasure- measur- ment ing point (feet) | Pump and power b/ | Use of water c/ | Remaris |
| :---: | :---: | :---: | :---: | :---: |
| 374 | $\begin{gathered} 30.7 \text { Dec. }^{4} \\ 1936 \end{gathered}$ | C, W | S | Steel casing. Teported never fails in drought. |
| 375 |  | C, 7 | S | Do. |
| 377 | $\begin{gathered} \hline 52.3 \begin{array}{l} \mathrm{Jan} .6, \\ 1937 \end{array}, \end{gathered}$ | C,V | S | 450 feet steel casing at top. Reported never fails in drought. |
| 378 | 114.1 do. | C,W | D, S | Stecl casing. Reported ncvor fails in drought. |
| c/ I, irrigation; Ind, industrial; $D$, domestic; $S$, stock; $N$, not used. <br> d/ Wator levol reported. <br> E/ No wator sample collected for analysis. |  |  |  |  |

Logs of test wells drilled by $\mathrm{J}_{\text {. P P A. A. labor }}$ in Comal County, Texas (Samples examined and classified by Pmil J. IVichal, Froject Superintendent.)

Well 228
Junction of county roads, Edward Hernandez Survey 454, $4 \frac{1}{2}$ miles west of New Braunfels.

$$
\begin{gathered}
\text { Thickness Depth } \\
\text { (feet) (feet) }
\end{gathered}
$$

| Red clay and large gravel- - | 1 | 1 |
| :--- | :--- | :--- |
| Limestone- . - . . . . - | 4 | 5 | INo water sample collected. Jan. 25, 1937.

Woll 235
County road, Heirs of Jacob Steubing Survey 825,9 miles west of New Braurfels. Red clay and large grevol- - $7 \quad 17$ No water sample collected. Jen. 2i, 1937.

Woll 257
County road, George Jllrich Survey 392, 6 : miles west of New Eraunfels.
 Grayish-rollow clay- - - - 1416 Yellow clay end gravel - - 2 : 18 No water sample collectod. Jan. 18, 193 .

Well 263
Junction oi county roads, Lewis Salinas Survey 458 , $3 \frac{1}{2}$ miles west of New Eraunfels Red clay . . . . . . . . . . 2
 No water semple collected. Jan. 25, 1937.

HeIl 267
County road, Juan de Veramendi Survey, 3 miles north of New Braunfels.
Topsoil- - . . . . . . . 2 2 Yellowish-brown clay - - - 4
Rock - . . . . . . . . . . 410 No water samplo collected. Nov. 3, 1936.

Well 286
Twenty yards north of highway, neer junction of highway and county road, Orrilla Russell Survey 2, 5 miles northeast or New Braunfels.
Black topsoil- - - - - - - 1
Topsoil and gravel - - . - 2
Chalk- . . . . . . . . . . . 4
Gravel and yellow clay - - 4
Yellow clay and chalk- - - 10
No water sample collected. Oct. 22, 1936.:
Well 290
County road, Juan Martin de Veramendi Survey, $2 \frac{1}{3}$ miles north of New Braunfels. Whitish-yellow sand and
gravel - . . . . . . . 5 . 5
Yellow clay, sand and gravel 5
Yellow clay and pravel - - 5

We11 290--Continued Thickness Depth (feet) (feet)
Eluish-gray clay . - . - - 1 16

| Yellor clay and sand $\ldots \ldots$ | 17 |
| :--- | :--- | :--- |

Reddish-yellow clay end
gravei - . . . . . - 1128
Grey sand. . .......... 1 Z9
Yellon clay and gravel - - 2
Red clay - - . . . . . . - 4 Struck mater at 33 feet.
Water level, 32.7 feet below top of ground, $\frac{t}{x}$ hour after hole completed. No water sample collected. Nov. 2, 1936.

7 T 1 l 301
Junction of county roads, F. Rodriguez Survey 99,6 miles southwest of liew Braunfels.
Black topsoil. - . . . - 7 | 7
Yellowish-brom clay, black
topsoil, and gravel - - 310 Struck water at 9.8 feet.
Thater level, 8.3 feet below top of ground, $\frac{7}{x}$ hour after hole completed. Tater sample collected. Dec. 16, 1936.

Well 302
County road, F. Rodriguez Survey 99, 5妾 miles southrest of New Braunfels.
Black topsoil- - . . . . 10
Yellowish-brown clay, black
topsoil, and gravel -:- $1 \quad 11$ Struck water at 11 feet. Water level, 7.3 feet below top of ground, $\frac{1}{4}$ hour after hole completed. Water sample collected. Dec. 18, 1936.

## Well 303

County road, F. Rodriguez Survey $99,5 \frac{1}{2}$ miles southwest of New Braunfels.
Elack topsoil- - - - - $8 \mid 8$
Black topsoil and gravel - 210 Btrack water at 8 feet.
Jater level, 8 feet belom top of ground, 8 minutes after hole completed.
Tlater sample collected. Dec. 18, 1936.
Well 310
County road, John Nelson Survey 97, 9를 miles southwest of New Braunfels. Grayish-islack topsoil- - - $3 \mid 3$
Light yelloz clay streaked with bright yellow- - - 14
Yellon clay and gravel - - 18
No water sample coilected. Jan. 11, 19:7.
-30-
Logs of W. P. A. tost wells in Comal County--Continued

Well 324
County road, V. Bennett Survey 100, 8 miles southmest of New Braunfels.

> Thickness Depth
(feet) (foet)
Gray clay and gravel- - - $2 \mid 2$ Laminated light orange and yellov clay - . . . . - 4 Yellow clay and gravel- - - 5 No water sample collectod. Jan. 11, 1937.

Well 331
County road, F. Rodriguez Survey 99, 6 miles southwost of Nem Braunfels:
Black topsoil . . . . . . 3 Grayish-yellow clay - . . - 2 Reddish-yellow clay and gravel - . . . . . - 11
No rater sample collected. Jan. 19, $193 \%$.
Well 334
County road, F. Rodriguez Survey 99, 6 miles southeest of Ner Braunfels.
 Light yellow clay, chalk,
and gravel. ........ 2
Light yellow clay - - - - - 3
Light yello: clay and gravel 2
16
No water sample collected. Jan. 7, 1937.
Tell 335
Road junction, Fe Rodriguez Survey 99, $5 \frac{1}{2}$ miles southrest of Nem Braunfels.
Bleck topsoil . . . . . . . 4
Black topsoil and gravel- - 2
Brownish-yoilow clay- - - 7
Light yellow clay and gravel 4
Iight yollor clay - 18
Light yello: clay . . . . . $\left.1 \frac{1}{2} \right\rvert\, 20$ struck weter at $18 \frac{1}{2}$ feet. Watir level, 16.9 feet belor top of ground, 4 hours after hole completed. No rater sample collected. Dec. 16, 1936.

Well 340
County road, Juan de Veramendi Survey, 11 miles southwest of New Braunfels. Black topsoil - . . . . - 4 Yellow clay - . . . . . . . 3 Reddish-yellow clay - - - 2 Light yollow clay and gravel 2 Grayish-brown clay and grevel 4 Light yellow clay and sand- 6 Blue clay . . . . . . . . 8
No water sample collected. Nov.

We11 345
County road, Juan Liartin de Veramendi Survey, 5 miles southwest of New Braunfels. Thickness Depth (feet) (feet)
Black topsoil - . . . . . - 3 | 3
Light yellow clay and black


Bromish-yellow clay- - - 7
iron-stained chalk- . . - 215
Iight yellow clay and light
gray soapstone- . . . . 7
Light yellow clay - . . .. - 6
Yellow clay and iron-stained
sand - . . . . . . . 1

Light yellow clay and gray
soapstone - . . . . . - 6
Blue clay - . . . . . . . . . 1
Yellow clay - . . . . . - 1
Blue clay . . . . . . . . . . 30
Blue and yellow clay- . . - $1 \quad 41$
Blue clay - . . . . . . . . . 30 71
No water sample collected. Nov. 17, 1936.
Well 350
County road, Juan hartin de Veramendi Survey, 1 mile southmest of New Braunfels. Black topsoil - . . . . - 2 Reddish-yellow clay and
small gravel- - - . - 3
Reddish-yellow sand and clay 16
Yellow sand and gravel- - 5
Yellow clay and gravel- - $\quad 2 \quad 28$
rravel- . . . . . . . . . 1 29
No water sample collected. Dec. 21, 1936.
7ell 351
County road, Juan Martin de Veramendi Surm frey, I mile southwest of Nem Braunfels. Biack topsoil - . . . . - - 3
Tellow clay and gravel- - $\quad 2 \quad 5$
Yellow clay and sand- - - 15 Wellowish-brown clay and

No mater sample collected. Dec. 21, 1936.
Mell 353
County road, f. M. Esnaurizar Survey, $\mathrm{l}_{2}$ miles east of New Braunfels.
Yellow clay and black top-
soil- - . . . . . . - $\quad 1 \quad 1$
Yellow clay … . . . . . . 3
Yellow sand - . . . . . . . . 3
Yellow sand and gravel- - 9816
No water sample collected. Jan. 7, 1937.

Well 354
County road, A. M. Esnaurizar Survey, $1 \frac{1}{2}$ miles east of New Braunfels.

Thickness Depth
(feet) (feet)
Black topsoil- - . . . . - $\quad$ ?

Gray sand- - . . . . . . . . . 2 Reddish-yellow sand- - - - 4 | Reddish-yellow sand and gravel 7 | 20 |
| :--- | :--- | :--- | No water sample collected. Jan. 6, 1920.

Well 357
50 yards north of highway, at junction of highmay and county road, A. M. Esnaurizar Survey, $2 \frac{1}{2}$ miles east of New Braunfels. Black topsoil- - . . . . . 4 Yellow clay- - - . . . . - 5 Yellor clay and sand - - - - $17 \quad 26$ Gray soapstone - - - - - - 10 Yellow clay and chalk. - - - 5 Yellow sand- - . . . . . - 1 l 42 Sandstone- . . . . . . . . . $\frac{1}{2}$ 421 Struck mater at 42 feet. Water level, 40 feet below top of ground, $\frac{1}{2}$ hour after hole completed.
Water sample collected. Oct. 20, 1936.
Well 358
County road, Henry Foster Survey 34, $2 \frac{1}{2}$ miles east of New Braunfels.
Topsoil- - . . - - - - $2 \mid 2$
Yellow sand and smail gravel 4
Yellow sand - . . . . . . - 10 16
Yellow sand and clay - . - - 2
Reddish-yollow clay and gravel 5
Grayish-yellow clay- - - - 1 No mater sample collected. Nov. 5, 1936.

Tell 366
River bottom, 100 yards north of highmay intersection, A. M. Esneurizar Survey, $2 \frac{1}{2}$ miles east of New Braunfels.
Black topsoil- - . . . . - $4 \mid 4$
Black topsoil and pink gravel 1 5
Pinkish-yellow clay and chalk 4
Yellow clay and gravel - - $\quad 2 \quad 11$ Gravel and caliche - - - - 5 Rock - . . . . . . . . . . . . $\frac{1}{2}$ 16 $\frac{1}{2}$ No water sample collected. Oct. 10, 1936!
mell 369
Road junction, John Thompson Survey, $1 \frac{1}{2}$ miles south of New Braunfels.
Topsoil. . ............. 3
Yellow clay and gravel - - - $9 \quad 12$
Rock - . . . . . - . - - 13 No water sample collected. Oct. 28, 1936.

Well 370
County road, John Thompson Survey, 2 miles southwest of Nem Braunfels.

Thickness Depth
(feet) (feet)
 Struck water at 45 feet.
TVater level; 43.4 feet below top of ground, 2 hours after hole completed.
rater sample collected. Nov. 16, 1936.
Well 371
County road, John Thompson Survey, 3 miles southwest of New Braunfels.
Black topsoil - . . . . - 3
Grayish sand and clay - - - 4
Yellow clay and sand- - - - 4
Grayish clay- . . . . . . . 2
iight yellow clay - . . - - 1
Grayish-yellow clay - . - - 13
Light yello\# clay - . . . - 2229
Light gray clay and yellow
sand- - . . . . . . - - 1
Iight gray clay - . . . - . $\quad 1$
Light gray clay and bluish
soapstone - - . . - - - 2 33
Light yellow clay - - . - - 1 Struck water at 33 feet.
Water level, 29.2 feet below top of ground,
3 hours after hole completed.
Water sample collected. Nov. 16, 1936
Well 376
County road, John Thomps on Survey, $4 \frac{1}{2}$ miles southrost of Nen Braunfels.
Black topsoil - . . . . . . 3
Black topsoin, yellow clay
and gravel- - . . . . - 2
Yellor cley, chalk and gravel 4

Logs of W. P. A. test rells in Comal County--Continued

## Well 376mCentinued

Thickness Depth (feet) (feet)
Light yellow clay and gravel- - - . . . - - 110
Yellow clay and ferrous sand 1 Light yellow clay and soapstone - - - - - - - - 3
Orange clay and sand- - - 1
Yellow clay and soapstone - $11 \quad 25$
Yellow clay - - - . - - $\quad 2 \quad 28$ Struck water at $27 \frac{1}{2}$ feet.
Water level, 27 feet below top of ground,
1 hour after hole completed.
Water sample collected. Nov. 17, 1936,
(Analyzed at the State University under the direction of Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry, by J. E. Stullken, C. R. Stewart, D. F. Riddell, and Alfred J. Kelly, Chemists, and J. A. Harmaza, Martin Wieland and Jack Ramsey, Assistant Chemists. Results are in parts per million. Well numbers correspond to numbers in table of well records.)

| $\begin{aligned} & \text { Well } \\ & \text { No. } \end{aligned}$ | Owner | $\begin{gathered} \text { Depth } \\ \text { of } \\ \text { well } \\ (\text { feet }) \\ \hline \end{gathered}$ | Date of collection | $\left\|\begin{array}{c}\text { Total } \\ \text { dissolved } \\ \text { solids } \\ \text { (calculated) }\end{array}\right\|$ | Calcium (Ca) | $\left\lvert\, \begin{aligned} & \text { Magnes } \\ & \text { ium } \\ & (\mathrm{Mg}) \end{aligned}\right.$ | $\left(\left.\begin{array}{c}\text { Sodium and } \\ \text { Potassium } \\ \text { (Na } \neq \mathrm{K}) \\ \text { calculated }\end{array} \right\rvert\,\right.$ | $\begin{gathered} \text { Bicar- } \\ \text { bonate } \\ \left(\mathrm{HCO}_{3}\right) \end{gathered}$ | $\underset{\left(\mathrm{SO}_{4}\right)}{\text { Sulphate }}$ | $\begin{gathered} \text { Chloride } \\ \text { (Cl) } \end{gathered}$ | Total hardenss as CaCO (calculated) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | C.I. Meserolo | Spring | Nov.13,1936 | 251 | 76 | 17 | - | 290 | a/ | 15 | 260 |
| 2 | do. | 217 | do. | 250 | 56 | 24 | 11 | 293 | a/ | 15 | 237 |
| 3 | do. | 220 | do. | 227 | - | - | - | 250 | a/ | 14 | - |
| 4 | E. Kaderli | 250 | do. | 89 | - | - | - | 85 | a/ | 12 | - |
| 5 | Finil Doell | 300 | Dec.31,1936 | 166 | - | - | - | 134 | 12 | 25 | - |
| 6 | H. Fisher | 327 | Nov. 4,1936 | 178 | - | - | - | 146 | 20 | 19 | - |
| 7 | R.O. Fisher | Spring | do. | 301 | 101 | 9 | 6 | 342 | a/ | 17 | 291 |
| 8 | ji.0. Fischer | 218 | Dec. 31,1936 | 293 | - | - | - | 323 | a/ | 18 | - |
| 9 | H. Pantormuehl | 275 | Nov. 4,1936 | - 276 | - | - | - | 244 | 39 | 13 | - |
| 12 | Eugene E. Schee | 1220 | Dec. 8,1936 | 290 | - | - | - | 195 | 71 | 19 | - |
| 13 | Otto Truer | 350 | Dec. 4,1936 | 389 | 60. | 57 | - | 230 | 114 | 35 | 385 |
| 14 | do. | Spring | Dec.12,1936 | 177 | 41 | 9 | 15 | 159 | 16 | 18 | 140 |
| 15 | Mrs. D. Hall | do. | Nov. 4,1936 | 228 | 74 | 13 | - | 256 | a/ | 15 | 238 |
| 16 | C.D. Fall | 240 | do. | 258 | 65 | 14 | 17 | 256 | 16 | 20 | 218 |
| 17 | F. J. Peters | 500 | Dec. 31,1936 | 295 | 32 | 42 | 22 | 275 | 42 | 22 | 251 |
| 18 | Theo. Meyers | 400 | Dec. 8,1936 | 431 | 63 | 55 | 21 | 378 | 83 | 23 | 384 |
| 19 | J.C. Talley | 325 | do. | 455 | 42 | 73 | 18 | 329 | 138 | 22 | 406 |
| 20 | Mrs. Jennie B. <br> Hickman Bell | 80 | $\mathrm{do}$ | 262 | - | - | - | 214 | 45 | 15 | - |
| 21 | Chas. Pantermue | hl Sprin | 1 g Dec.31,193 | 36-187 | 30 | 21 | 13 | 189 | 16 | 14 | 163 |
| 22 | do. | 110 | do. | 223 | 55 | 24 | - | 256 | a/ | 18 | 235 |
| 23 | Max Linnartz | 228 | Nov. 3,1936 | 446 | 68 | 49 | 27 | 329 | 103 | 37 | 370 |
| 24 | Frank Guenther | 169 | Nov. 4,1936 | 166 | 25 | 23 | 7 | 165 | 16 | 14 | 155 |
| 25 | Geo. T. Spears | 300 | Nov.11,1936 | 176 | 46 | 10 | 10 | 183 | a/ | 20 | 157 |
|  | F. and R. Schac koeter | fer- <br> Spring | Dec.10,1936 | 14.1 | 36 | 10 | 6 | 146 | a) | 17 | 132 |
| 28 | Bert Specht | do. | do. | 159 | 41 | 8 | 11 | 146 | a/ | 27 | 135 |
| 30 | Mrs. P.G. Remml | er 184 | Dec. 9,1936 | 329 | 21 | 38 | 55 | 311 | 42 | 20 | 208 |
| 31 | J.K. Baretta | 280 | do. | 168 | 23 | 24 | 6 | 122 | 28 | 27 | 155 |
| 32 | Mris. J. W. Heard | 100 | do. | 360 | 118 | 16 | 1 | 470 | 16 | 11 | 360 |

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Comal County--Continued

| $\begin{gathered} \text { Well } \\ \text { No. } \end{gathered}$ | Owner | $\left\|\begin{array}{c}\text { Depth } \\ \text { of } \\ \text { well } \\ \text { (feet) }\end{array}\right\|$ |  | $\left[\begin{array}{c}\text { Total } \\ \text { dissolved } \\ \text { solids } \\ \text { (calculated) }\end{array}\right.$ | $\begin{gathered} \text { Calcium } \\ \text { (Ca) } \end{gathered}$ | $\begin{array}{\|l\|} \hline \text { Magnes- } \\ \text { ium } \\ \text { (Mg) } \end{array}$ | $\|$Sodium and <br> Potassium <br> ( $\mathrm{Na} \nmid \mathrm{K}$ ) <br> calculated) | $\begin{aligned} & \text { Bicar- } \\ & \text { bonate } \\ & \left(\mathrm{HCO}_{3}\right) \end{aligned}$ | $\underset{\left(\mathrm{SO}_{4}\right)}{\text { Sulphate }}$ | $\begin{gathered} \text { Chloride } \\ \text { (Cl) } \end{gathered}$ | Total hardness as $\mathrm{CaCO}_{3}$ calculated) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33 | Claude Heard | 120 | Dec. 9,1936 | 196 | - | - | - | 153 | 28 | 20 | - |
| 34 | Ed. Kaderli | 112 | do. | 193 | 27 | 24 | 14 | 183 | 20 | 18 | 165 |
| 35 | A.H. Flugrath | Spring | Nov.13,1936 | 323 | 94 | 19 | 9 | 372 | a/ | 18 | 312 |
| 37 | W.A. Ellis | 240 | Dec.15,1936 | 335 | - | - | - | 329 | 26 | 18 | - |
| 38 | do. | 20 | do. | 154 | - | - | - | 146 | a/ | 22 | - |
| 39 | do. | 50 | do. | 289 | - | - | - | 311 | a/ | 22 | - |
| 40 | Albert Pape | 26 | Nov.13,1936 | 338 | - | - | - | 372 | a) | 21 | - |
| 41 | W. H. F9 ${ }^{\text {P }}$ | 175 | Dec.31,1936 | 144 | $\cdots$ | - | - | 92 | 20 | 26 | $\cdots$ |
| 42 | Henry Pantermuen | - | Nov. 4,1936 | 1,557 | - | - | - | 317 | 870 | 41 | - |
| 43 | Theo. Krart | 428 | Nov. 3,1936 | 504 | 72 | 57 | 32 | 378 | 158 | 19 | 412 |
| 44 | Eugeno Grcin | 250 | Doc. 3,1936 | 227 | 34 | 36 | - | 207 | 40 | 15 | 232 |
| 45 | Waluer Kaderli | 170 | Nov. 3,1936 | 777 | - | - | - | 293 | 356 | 12 | - |
| 46 | M. Leaghling | Spring | NOV. 5, 1936 | 174 | - | - | - | 165 | 10 | 16 | - |
| 47 | -- | do. | oct, 5,1936 | 295 | 58 | 34 | 8 | 311 | 26 | 16 | 286 |
| 48 | H. W. Kraft Esta | $t e 6 y$ | Nov.11,1936 | 218 | - | - | - | 232 | 2. | 18 | - |
| 49 | do. | Spring | NOV.16,1936 | 265 | 70 | 19 | 7 | 275 | 16 | 18 | 252 |
| 101 | Bert Specht | 212 | Nov.10,1936 | 538 | - | - | - | 281 | 142 | 68 | - |
| 102 | Ed. Gass | 140 | Dec. 9,1936 | 174 | - | - | - | 116 | 26 | 27 | - |
| 103 | Arno Kinibbe | 124 | Dec. 10,1936 | 437 | 168 | 19 | - | 317 | 47 | 47 | 497 |
| 104 | G.W. Iyles | Spring | Nov.20,1936 | 121 | 26 | 12 | 6 | 122 | a/ | 17 | 112 |
| 105 | Erie Spocht | 75 | do. | 110 | $\sim$ | - | - | 98 | a] | 19 | - |
| 106 | do. | 250 | do. | 105 | 20 | 12 | 5 | 92 | a/ | 23 | 97 |
| 107 | Wm. Neugebauer | 163 | do. | 445 | - | - | - | 445 | 35 | 19 | - |
| 108 | Arno Knibbe | 225 | Dec. 10,1936 | 512 | 85 | 26 | 66 | 214 | 93 | 137 | 321 |
| 109 | D.I. Knibbe | 120 | do. | 340 | - | - | - | 183 | 103 | 28 | - |
| 110 | do. | 280 | do. | 1,348 | 71 | 71 | 325 | 171 | 237 | 560 | 469 |
| 111 | Chas. Eibel | 100 | Dec. 9,1936 | 190 | - | - | - | 165 | 16 | 21 | - |
| 113 | Alfred Gass | 175 | NOV.20,1936 | 598 | 43 | 47 | 108 | 171 | 138 | 178 | 299 |
| 114 | Harry Knibbe | Spring | do. | 136 | 23 | 17 | 8 | 140 | a/ | 19 | 125 |
| 115 | William Specht | 250 | do. | 248 | 52 | 42 | - | 159 | 35 | 41 | 301 |
| 116 | Ed. Bartels | 80 | Dec. 10,1936 | 336 | - | - | - | 323 | 28 | 20 | - |
| 117 | Alfred Beierle | 157 | Nov.20,1936 | 148 | 11 | 1 | 50 | 134 | a/ | 20 | 30 |
| 118 | Henry Jonas Esta | te 108 | Jan.26,1936 | 323 | - | - | - | 250 | 24 | 54 | - |
| 119 | John Stricker | 250 | Nov.19,1936 | 230 | 51 | 25 | 6 | 268 | a/ | 16 | 230 |

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Comal County--Continued

| $\begin{aligned} & \text { Well } \\ & \text { No. } \end{aligned}$ | Owner | $\begin{gathered} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { (feet) } \\ \hline \end{gathered}$ | $\left.\left\lvert\, \begin{array}{c}\text { Date } \\ \text { of } \\ \text { collection }\end{array}\right.\right]$ | $\left\|\begin{array}{c}\text { Total } \\ \text { dissolved } \\ \text { solids } \\ \text { (calculated) }\end{array}\right\|$ | Calcium (Ca) | $\begin{aligned} & \text { Magnes- } \\ & \text { ium } \\ & \text { (Mg) } \\ & \hline \end{aligned}$ | $\|$Sodium and Bicar- <br> Potassium bonate <br> (Na \& K) $\left(\mathrm{HCO}_{3}\right)$ <br> calculated)  | $\underset{\left(\mathrm{SO}_{4}\right)}{\mathrm{Sulphate}^{2}}$ | $\begin{gathered} \text { Chloride } \\ \text { (Cl) } \end{gathered}$ | Total hardness as CaCO (calculated) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 120 | S.L. Gill | 280 | Nov. 16,1936 | 339 | 115 | 9 | 8 403 | a) | 9 | 326 |
| 121 | Wh. Gast | 115 | Nov. 27,1936 | 102 | - | - | 92 | a | 17 | - |
| 122 | Erie Specht | 200 | do. | 394 | 27 | 44 | $60 \quad 262$ | 71 | 63 | 247 |
| 123 | Fred Wehe | 350 | Nov. 21,1936 | 237 | 70 | 20 | 98 | 35 | 64. | 257 |
| 124 | Ed. Encbel | 210 | Nov.16,1936 | 194 | - | - | 195 | a/ | 22 | - |
| 125 | Otto Erben | 450 | Nov. 2,1936 | 203 | - | - | 220 | a/ | 15 | - |
| 126 | Julius Bremer | 185 | NOV. 25,1936 | 302 | 54 | 49 | 372 | a/ | 16 | 335 |
| 128 | A.J. Waloer | 264 | Nov. 2,1936 | 224 | - | - | 183 | 24 | 26 | - |
| 130 | R.P. Holt | 680 | Dec.11,1936 | 2,608 | 346 | 201 | 179 232 | 1,642 | 126 | 1,689 |
| 131 | J.J. Arrechea | 300 | Nov.16,1936 | 214 | 66 | 7 | $10 \quad 244$ | a) | 11 | 198 |
| 132 | A.P. Scheel | 350 | Dec. 7,1936 | 293 | 83 | 23 | $1 \quad 342$ | a/ | 18 | 194 |
| 133 | Eugene T . Scheel | 280 | do. | 131 | - | - | 122 | 日/ | 20 | 191 |
| 134 | Fin. Mons | 96 | do. | 391 | - | - | 415 | 12 | 22 | - |
| 135 | John runc | 300 | Dec.23,1936 | 318 | - | - | 336 | 16 | 13 | - |
| 136 | Miss. Erma Saur | 218 | do. | 222 | - | - | 226 | 12 | 13 | - |
| 137 | Guy S. McFarland | 300 | do. | 261 | 51 | 24 | $18 \quad 275$ | 20 | 13 | 225 |
| 138 | Bruno Klar | 25 | do. | 313 | - | - | - 5 - | a/ | 15 | - |
| 139 | Joseph offer | 200 | do. | 357 | 85 | 26 | $17 \quad 366$ | 32 | 17 | 321 |
| 140 | F. Neugebauor | 300 | Dec. 7,1936 | 158 | 19 | 23 | $10 \quad 159$ | 12 | 16 | 144 |
| 141 | George Bros. | 216 | Dec.12,1956 | 328 | - | - | 354 | 8 | 17 | - |
| 142 | Mrs. C.I. Ellswo | rth 217 | 7 do. | 151 | - | - | 134 | 16 | 12 | - |
| 143 | August Scholz Est | t. 236 | Nov. 30,1936 | 165 | - | - | 177 | a/ | 13 | - |
| 144 | do. | 265 | do. | 226 | 32 | 31 | $12 \quad 238$ | 20 | 14 | 209 |
| 145 | Mrs. Chas. Erben | 235 | Dec. 7,1936 | 200 | - | - | - 171 | 26 | 15 | 209 |
| 146 | E.A. Laubach | 400 | do. ${ }^{\text {do. }}$ | 164 | 24 | 26 | $3-171$ | 12 | 15 | 166 |
| 147 | do. | 25 | do. | 139 | - | - | 92 | 24 | 19 | 16 |
| 148 | August Scheel | 15 | do. | 385 | - | - | - 390 | 24 | 20 | - |
| 149 | do. | 318 | do. | 360 | - | $\sim$ | - 342 | 28 | 26 | - |
| 150 | Mrs. Louise Hill | 480 | Nov. 21,1936 | 173 | 45 | 18 | - 85 | 24 | 44 | 186 |
| 151 | 0. Wohe | 350 | Nov. 27,1936 | 142 | 12 | 18 | $21-153$ | a/ | 16 | 101 |
| 152 | $\frac{\text { do. }}{\text { dab }}$ | 110 | do. | 112 | - | - | 110 | a/ | 14 | 101 |
| 153 | J.A. Laubach | 60 | do. | 298 | - | - | 232 | 28 | 44 | - |
| 154 | ( do. | 25 | do. | 217 | - | - | 238 | 1 | 14 | - |
| 155 | George Fronne | 145 | Dec.10,1936 | 263 | - | - | - 220 | 32 | 21 | - |

[^0]Partial analyses of water from wells in Comal County--Continued Results are in parts per million.

| $\begin{aligned} & \text { Well } \\ & \text { No. } \end{aligned}$ | Owner | Depth of well (feet) | $\left\|\begin{array}{c}\text { Date } \\ \text { of } \\ \text { collection }\end{array}\right\|$ (ca | Total dissolved solids calculated | Calcium (Ca) | $\left\lvert\, \begin{gathered} \text { Magnes } \\ \text { ium } \\ (\mathrm{Mg}) \end{gathered}\right.$ | $\left\|\begin{array}{c}\text { Sodium and } \\ \text { Potassium } \\ \text { (Na \& K) } \\ \text { calculated) }\end{array}\right\|$ | $\left\|\begin{array}{l} \text { Bicar- } \\ \text { bonate } \\ \left(\mathrm{HCO}_{3}\right) \end{array}\right\|$ | $\underset{\left(\mathrm{SO}_{4}\right)}{\substack{\text { Sulphate }}}$ | $\left\lvert\, \begin{gathered} \text { Chloride } \\ \text { (Cl) } \end{gathered}\right.$ | Total hardness as $\mathrm{CaCO}_{3}$ (calculated) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 156 | Gus Weidner | 360 | Dec.11,1936 | 200 | 62 | 18 | - | 220 | a/ | 12 | 232 |
| $156 a$ | Robert Bose | 465 | do. | 287 | 13 | 24 | 68 | 268 | 36 | 14 | 130 |
| 156 b | do. | Spring | do. | 204 | 48 | 12 | 14 | 159 | 16 | 36 | 167 |
| 157 | O.R. McKinney | 635 | do. | 314 | 77 | 24 | 12 | 336 | 24 | 12 | 290 |
| 158 | W.F. Sumbling | 383 | Jan.26,1936 | 368 | 52 | 57 | 8 | 378 | 53 | 12 | 365 |
| 159 | O.A. Doeppenschm | idt 615 | 5 Nov. 2,1936 | 742 | 151 | 62 | 11 | 366 | 323 | 15 | 633 |
| 161 | do. | - | do. | 394 | - | - | - | 390 | 28 | 22 | - |
| 162 | do. | 350 | Jan. 2,1936 | 400 | 72 | 49 | 12 | 390 | 55 | 20 | 380 |
| 164 | B. Stapper | 480 | Nov. 2,1936 | 634 | 98 | 75 | 7 | 287 | 299 | 14 | 551 |
| 165 | Ed. Adam | 24 | Dec.11,1936 | 262 | - | - | - | 293 | a) | 14 | - |
| 166 | do. | 600 | do. | 481 | 97 | 45 | 10 | 329 | 150 | 17 | 428 |
| 167 | Clemens Scholz | 245 | do. | 219 | 18 | 36 | 16 | 220 | 28 | 13 | 192 |
| 168 | Julius Bose | 348 | do. | 138 | 30 | 13 | 7 | 146 | a/ | 16 | 128 |
| 169 | Ben Bose | 348 | do. | 235 | 69 | 17 | 1 | 268 | $3 /$ | 16 | 240 |
| 170 | Erwin Schneider | 414 | Dec. 15,1936 | 312 | - | - | - | 281 | 36 | 20 | - |
| 171 | Mrs. Mattie Shelb | lburne 2 | 248 Nov.16,1936 | 36302 | - | - | - | 342 | a/ | 14 | - |
| 172 | V.F. Moos | 320 | NOV.27,1936 | 281 | 78 | 13 | 14 | 293 | 20 | 12 | 248 |
| 173 | Edgar Bremer | 100 | Nov.21,1936 | 111 | - | - | - | 98 | $2 /$ | 20 | - |
| 174 | Mrs. M.K. Holman | - 30 | Nov.30,1936 | 113 | - | - | - | 110 | a/ | 15 | - |
| 175 | do. | 315 | do. | 240 | 36 | 30 | 13 | 226 | 36 | 14 | 213 |
| 176 | do. | Spring | do. | 265 | 86 | 10 | 6 | 305 | $9 /$ | 13 | 256 |
| 177 | I.T. Jones | 300 | do. | 334 | - | - | - | 336 | 24 | 16 | - |
| 178 | H. Laubach | 700 | do. | 486 | 39 | 71 | 26 | 226 | 209 | 30 | 389 |
| 179 | W.0. Stah1 | 308 | Nov. 27,1936 | 176 | - | - | - | 153 | 16 | 18 | - |
| 180 | Philip Iux | 348 | do. | 277 | 89 | 17 | - | 305 | a/ | 21 | 290 |
| 182 | August Scholz | 336 | do. | 278 | 74 | 21 | 3 | 244 | 19 | 41 | 272 |
| 183 | August Wehe | 375 | Nov. 12,1936 | 357 | - | - | - | 305 | 39 | 33 | - |
| 184 | Chas. Willig | 300 | do. | 584 | 91 | 72 | 15 | 421 | 185 | 14 | 524 |
| 185 | Herman Scholz | 320 | Dec.15,1936 | 169 | - | - | - | 140 | 24 | 13 | - |
| 186 | Mrs. Emilie Stahl | 1450 | do. | 574 | 117 | 46 | 19 | 348 | 195 | 26 | 484 |
| 188 | Adam Meyer | 90 | Nov.15,1936 | 348 | 144 | 4 | - | 268 | $3 /$ | 68 | 378 |
| 189 | Otto Hitzfelder | 15 | Nov.11,1936 | 180 | - | - | - | 171. | 12 | 15 | - |
| 190 | do. S | Spring | Nov.15,1936 | 297 | 95 | 10 | 9 | 342 | a/ | 15 | 281 |
| 191 | do. | 381 | Nov.12,1936 | 911 | - | - | - | 67 | 590 | 13 | - |
| 192 | W.B. Ethridge S | Spring | do. | 143 | 51 | 10 | - | 159 | a/ | 4 | 171 |

Partial analyses of water from wells in Comal County-montinued
Results are in parts per million.

| $\begin{aligned} & \text { Well } \\ & \text { No. } \end{aligned}$ | Owner | $\|$Depth <br> of <br> well <br> feet $)$ | Date of collection | $\left\|\begin{array}{c}\text { Total } \\ \text { dissolved } \\ \text { solids } \\ \text { (calculated) }\end{array}\right\|$ | Calcium (Ca) | $\left\lvert\, \begin{aligned} & \text { Magnes- } \\ & \text { ium } \\ & \text { (Mg) } \end{aligned}\right.$ | $\left(\begin{array}{c}\text { Sodium and } \\ \text { Potassium } \\ \text { (Na } 4 \mathrm{~K}) \\ \text { calculated }\end{array}\right)$ | $\sqrt{\text { Bicar }} \begin{aligned} & \text { bonate } \\ & \left(\mathrm{HCO}_{3}\right) \end{aligned}$ | Sulphate $\left(\mathrm{SO}_{4}\right)$ | Chloride (Cl) | Total hardness as $\mathrm{CaCO}_{3}$ (calculated) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 193 | W.B. Ethridge | 200 | Nov.12,1936 | 1,277 | - | - | - | 299 | 716 | 11 | - |
| 194 | Wm. Zeucher | 535 | do. | 593 | 122 | 48 | 10 | 293 | 260 | 9 | 501 |
| 195 | Robert Heimer | 178 | Nov. 2,1936 | 230 | 58 | 23 | 2 | 281 | a/ | 9 | 239 |
| 201 | C.B. Crawford | 300 | Nov. 3,1936 | 303 | $\cdots$ | - | - | 305 | 24 | 12 | - |
| 202 | H. Kanc | 50 | Nov. 4,1936 | 310 | - | - | - | 342 | a/ | 19 | - |
| 203 | H.A. Conrad | Spring | Nov. 5,1936 | 172 | 27 | 26 | 5 | 201 | a) | 15 | 176 |
| 204 | Herman Conrads | 180 | Jan.26,1936 | 414 | - | - | - | 384 | 28 | 38 | - |
| 205 | FA. Haag | 475 | cct.28,1936 | 323 | - | - | - | 366 | a/ | 15 | - |
| 206 | A.I. Kabelmacher | r 475 | Nov. 9,1936 | 222 | - | - | - | 189 | 35 | 11 | - |
| 207 | Ed. Reeh | 325 | Dec. 1,1936 | 49 | - | - | - | 12 | $\underline{ }$ | 25 | - |
| 209 | do. | 390 | do. | 142 | - | - | - | 153 | a/ | 11 | - |
| 210 | George Gesche | 320 | Nov. 9,1936 | 239 | 59 | 17 | 14 | 281 | 2 | 11 | 215 |
| 211 | otto ohlrich | 350 | do. | 741 | 212 | 29 | - | 329 | 295 | 13 | 648 |
| 212 | F. Herbst | 425 | Jan.25,1937 | 264 | 56 | 30 | 5 | 287 | 18 | $1 / 4$ | 263 |
| 213 | B. Bochers | 402 | Nov. 2,1936 | 183 | - | - | - | 183 | $2 /$ | 21 | - |
| 21.4 | Paul Dietz | 300 | Nov. 5,1936 | 237 | 62 | 31 | - | 293 | a/ | 10 | 259 |
| 215 | Jerome Schumann | 365 | Jan.18,1936 | 261 | 64 | 28 | 2 | 317 | a/ | 11 | 272 |
| 216 | Alvin Jahns | 300 | do. | 195 | 48 | 21 | - | 232 | a) | 12 | 208 |
| 217 | H.D. Stronberg | Spring | NOV. 5,1936 | 232 | 45 | 25 | 13 | 275 | a/ | 14 | 216 |
| 219 | E.T. Lackey | 500 | Nov. 3,1936 | 234 | 64 | 19 | 3 | 281 | a/ | 10 | 237 |
| 220 | Albert Pfeufier | 400 | do. | 279 | 83 | 18 | 3 | 329 | a/ | 13 | 281 |
| 221 | Albert Simon | 186 | Dec. 21,1936 | 286 | - | - | - | 305 | 12 | 12 | - |
| 222 | Von. Krast | 190 | Oct.28,1936 | 266 | 83 | 15 | - | 268 | 12 | 24 | 270 |
| 223 | Albert Kraft | 320 | Dec.21,1936 | 206 | - | - | $\cdots$ | 207 | 12 | 12 | - |
| 224 | Hermen Kraft | 256 | do. | 291 | - | - | - | 311 | 12 | 12 | - |
| 225 | W.H. Harborth Es | t. 265 | Oct.28,1936 | 421 | 86 | 20 | 35 | 207 | 130 | 48 | 298 |
| 226 | Henry Heise | 290 | Dec.21,1936 | 304 | 91 | 16 | 6 | 336 | 12 | 14 | 295 |
| 227 | H. Borchers | 300 | Oct.28,1936 | 228 | 69 | 18 | - | 256 | a/ | 15 | 246 |
| 229 | Edward Nowotny | 325 | Dec.22,1936 | 240 | 59 | 16 | 12 | 250 | 16 | 14 | 215 |
| 230 | H. Doehne | 1000 | Jan.18,1937 | 180 | 35 | 15 | 13 | 171 | 20 | 13 | 150 |
| 231 | Gus Vogel | 325 | Dec.22,1936 | 285 | 85 | 18 | 1 | 311 | 16 | 12 | 286 |
| 232 | A.J. Caldwell | 250 | Jan.25,1936 | 296 | 94 | 11 | 4 | 281 | 22 | 27 | 282 |
| 233 | Richard Gesche | 313 | Dec.16,1936 | 345 | 141 | 9 | - | 329 | a/ | 33 | 391 |
| 234 | Otto Ohlrich | 265 | Nov. 9,1936 | 298 | - | - | - | 348 | a/ | 8 | - |
| a/ Sulphate less than 10 parts per militon. |  |  |  |  |  |  |  |  |  |  |  |

Partial analyses of water from wells in Comal County--Continued

| $\begin{aligned} & \text { Well } \\ & \text { No. } \end{aligned}$ | Owner | $\begin{gathered} \text { Depth } \\ \text { of } \\ \text { well } \\ \text { feet) } \end{gathered}$ | Date of collection | $\left(\begin{array}{c}\text { Total } \\ \text { dissolved } \\ \text { solids } \\ \text { (calculated) }\end{array}\right.$ | Calcium (Ca) | $\begin{gathered} \text { Magnes- } \\ \text { fum } \\ (\mathrm{Mg}) \end{gathered}$ | $\|$Sodium and <br> Potassium <br> (Na $\neq \mathrm{K}$ ) <br> calculated) | $\begin{aligned} & \text { Bicar- } \\ & \text { bonate } \\ & \left(\mathrm{HCO}_{3}\right) \end{aligned}$ | $\left\lvert\, \begin{aligned} & \mathrm{Sulphate}_{\left(\mathrm{SO}_{4}\right)} \end{aligned}\right.$ | $\begin{gathered} \text { Chloride } \\ \text { (Cl) } \end{gathered}$ | Total hardness as $\mathrm{CaCO}_{3}$ (calculated) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 236 | - | - | Jan. 21,1936 | 377 | - | - | - | 262 | 32 | 75 | - |
| 237 | Eugene Krause | 275 | Oct.26,1936 | 130 | 34 | 6 | 5 | 79 | 31 | 15 | 108 |
| 239 | Mrs. H. Hedwig | 45 | Nov . 24,1936 | 557 | 291 | 9 | - | 55 | 71 | 159 | 766 |
| 246 | H. Blank | 340 | do. | 257 | - | - | - | 293 | a/ | 11 | - |
| 242 | Lavine Hoffman | - | Dec.17,1936 | 143 | - | - | - | 159 | a/ | 8 | - |
| 243 | Edwin Gerhardt | 326 | Feb.17,1936 | 241 | - | - | - | 275 | a) | 10 | - |
| 244 | Linnie Binseil | 240 | do. | 243 | - | - | - | 281 | a/ | 8 | - |
| 24.5 | Lavine Hoffman | - | do. | 136 | - | - | - | 146 | a/ | 10 | - |
| 246 | Honry Schmidt | 50 | do. | 207 | 93 | 2 | - | 146 | 8 | 32 | 241 |
| 247 | Ennry Simeon | 200 | do. | 266 | 83 | 17 | - | 293 | 8 | 14. | 275 |
| 248 | A.B. Burphnrdt | 250 | Oct. 25,1936 | 278 | - | - | - | 299 | 12 | 10 | - |
| 249 | Ederar Burlmardt | 180 | Nov.24, 1936 | 265 | - | - | - | 293 | a/ | 16 | - |
| 250 | Glen Tision | - | Dcc.19,1936 | 448 | - | - | - | 323 | 75 | 49 | - |
| 251 | $\begin{aligned} & \text { Schaeff ir Bros. } \\ & \text { et al. } \end{aligned}$ | $275$ | Dec.18,1936 | 318 | 118 | 7 | - | 372 | a/ | 10 | 324 |
| 252 | Herman Vogel | 300 | Jan.21,1936 | 235 | 80 | 7 | 3 | 214 | 2 | 25 | 229 |
| 253 | C. Vreuslor | 300 | Nov.24,1936 | 198 | - | - | - | 214 | a/ | 15 | - |
| 254 | Erwin Toigt | 375 | Jan.21,1936 | 329 | 111 | 10 | 6 | 390 | a/ | 10 | 320 |
| 255 | Carl Krousler | 330 | do. | 280 | 119 | 8 | - | 73 | 51 | 66 | 305 |
| 256 | Mrs. Fin. Hillert | 390 | Nov. 9,1936 | 212 | - | - | - | 238 | a/ | 11 | - |
| 258 | Fritz Kunkle | 90 | Oct.27,1936 | 516 | - | - | - | 500 | 35 | 36 | - |
| 259 | do. | 420 | do. | 331 | 81 | 24 | 13 | 317 | 31 | 26 | 300 |
| 260 | Imil Deitz | 450 | Dec.22,1936 | 253 | 47 | 26 | 13 | 244 | 32 | 15 | 226 |
| 261 | O.C. Brohmer | 304 | Dec. 1,1936 | 139 | - | - | - | 116 | a/ | 28 | - |
| 262 | Ed. Heidrich | 335 | Oct. 27,1936 | 120 | 35 | 8 | 1 | 122 | a/ | 16 | 120 |
| 265 | R.R. Coreth | 290 | Dec.16,1936 | 304 | - | - | - | 311 | 20 | 13 | - |
| 268 | CA. Conring | 175 | 0ct.22,1936 | 162 | 33 | 17 | 6 | 153 | 16 | 15 | 150 |
| 269 | Jack Kretzmcir | 168 | do. | 303 | 82 | 19 | 10 | 317 | 20 | 16 | 282 |
| 270 | Alvin Praft | 138 | Oct.21,1936 | 253 | 60 | 19 | 12 | 256 | 20 | 16 | 227 |
| 271 | Robert Raabe | 140 | Dec.30,1936 | 309 | - | - | - | 293 | 30 | 17 | - |
| 272 | Bruno Raabe | - | do. | 303 | - | - | - | 293 | 26 | 17 | - |
| 273 | C. Conrad | 145 | Oct.20,1936 | 319 | 73 | 25 | 15 | 311 | 35 | 18 | 285 |
| 274 | Chas. Soechting | Est. 210 | Jan. 5,1936 | $6 \quad 714$ | - | - | - | 354 | 213 | 78 | - |
| 275 | Erich Roscnthal | 230 | Jexwentef | , $\times 10,380$ | 76 | 21 | 38 | 305 | 65 | 30 | 278 |

Partial analyses of water from wells in Comal County--Continued
Results are in parts per million.

| $\begin{gathered} \text { Well } \\ \text { No. } \end{gathered}$ | Owner $\left\|\begin{array}{c}\text { Depth } \\ \text { of } \\ \text { well } \\ \text { feet }\end{array}\right\|$ |  | Total dissolved solids calculated) | Calcium (Ca) | $\begin{aligned} & \text { Magnes } \\ & \text { lum } \\ & \text { (Mg) } \\ & \hline \end{aligned}$ | Sodium and Potassium (Na $f \mathrm{~K})$ (calculated) | $\left\lvert\, \begin{aligned} & \text { Bicar- } \\ & \text { bonate } \\ & \left(\mathrm{HCO}_{3}\right) \end{aligned}\right.$ | Sulphate $\left(\mathrm{SO}_{4}\right)$ | Chloride <br> (C1) | Total hardness as $\mathrm{CaCO}_{3}$ (calculated) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 277 | Chris. Rosenthal 212 | Jan. 5,1936 | 310 | - | - | - | 287 | 32 | 19 | - |
| 278 | Nancy Gruene 160 | Oct.20,1936 | 856 | 112 | 59 | 98 | 159 | 307 | 202 | 521 |
| 279 | Wh. Posey 160 | 0ct.21,1936 | 697 | 79 | 55 | 94 | 311 | 197 | 119 | 424 |
| 280 | Hilmer Doehne 250 | Jan. 5,1937 | 564 | - | - | - | 268 | 162 | 73 |  |
| 281 | Travis H. Tate 152 | Jan. 6,1937 | 573 | 99 | 37 | 58 | 305 | 130 | 99 | 398 |
| 282 | Phoenix Life Ins.Co.145 | 50ct.21,1936 | 6 648 | 111 | 32 | 77 | 275 | 169 | 124 | 410 |
| 283 | Emil Pruesser 330 | Jan. 5,1936 | 981 | 24 | 29 | 289 | 201 | 326 | 214 | 178 |
| 284 | Carl Kutscher Est. 50 | Oct.21,1936 | 680 | - | - | - | 458 | 98 | 106 | - |
| 285 | H. Mittendorf 32 | do. | 228 | 78 | 6 | 5 | 256 | a) | 13 | 218 |
| 287 | Arthur Bartels 65 | Oct.22,1936 | 352 | - | - | - | 256 | a/ | 91 | - |
| 288 | Ivan Wallhoefer Spring | Dec. 30,1936 | 260 | 94 | 7 | - | 232 | 24 | 21 | 264 |
| 289 | Wm. D. Wiemers 80 | do. | 287 | 68 | 15 | 21 | 268 | 32 | 19 | 234 |
| 291 | Oscar Priess 65 | 0ct.21,1936 | 286 | - | - | - | 268 | 23 | 17 | - |
| 292 | Johanna Baetde 85 | 0ct.28,1936 | 273 | - | - | - | 305 | 27 | 15 | - |
| 293 | H.IN. Landa - | Jan. 6, 1936 | 265 | - | - | - | 244 | 28 | 16 | - |
| 294 | City of New Braunfels spring | Oct.27.1936 | 253 | 55 | 19 | 1.5 | 244 | 26 | 17 | 219 |
| 295 | Mrs. Meta Penstorn 25 | Dec.22,1936 | 285 | - | - | - | 268 | 28 | 16 | - |
| 296 | Max Artgelt 345 | Dec. 4,1936 | 203 | $\cdots$ | - | - | 128 | 47 | 20 | - |
| 297 | U.S. Gypsum Co. 125 | do. | 268 | 50 | 18 | 25 | 244 | 32 | 17 | 202 |
| 298 | R.R. Coreth 275 | Dec.16,1936 | 288 | 99 | 9 | 3 | 336 | a) | 12 | 286 |
| 299 | Wm. Fey 89 | Dec. 5,1936 | 169 | - | - | - | 183 | a/ | 12 | - |
| 300 | Roland Welsch 372 | Dec. 4,1936 | 314 | 49 | 25 | 37 | 281 | 43 | 22 | 226 |
| 301 | W.P.A. test well 10 | Dec. 16, 1936 | 985 | - | - | - | 525 | 299 | 84 | - |
| 302 | do. 11 | Dec. 18,1936 | 451 | - | - | - | 476 | 35 | 7 | - |
| 303 | do. 10 | do. | 634 | - | - | - | 226 | 220 | 88 | $\cdots$ |
| 304 | Carl Krueger 300 | Dec. 16,1936 | 319 | - | - | - | 244 | 45 | 35 | - |
| 305 | Joseph Friesenhahn 360 | Dec. 18,1936 | 412 | - | - | - | 200 | 103 | 55 | - |
| 306 | Oscar Jonas 360 | do. | 296 | - | - | - | 281 | 26 | 19 | - |
| 307 | Adolph Mueller 160 | do. | 181 | - | - | - | 140 | 26 | 19 | - |
| 308 | Vesley Hierholzer 117 | Dec.19,1936 | 344 | 88 | 13 | 64 | 311 | 12 | 14 | 273 |
| 309 | Ben Elley 125 | do. | 256 | 79 | 14 | 4 | 299 | a/ | 12 | 254 |
| 311 | Robert Hierholzer 130 | do. | 193 | - | - | - | 189 | 16 | 10 | - |
| 312 | O. K. Klaerner 109 | 0ct.26,1936 | 260 | - | - | - | 293 | a/ | 13 | - |

a/ Sulphate less than 10 parts per million.

Partial analyses of water from wells in Comal County--Continued
Results are in parts per million.


[^1]Partial analyses of water from wells in Comal County-Continued
Results are in parts per million.

| $\begin{aligned} & \text { Well } \\ & \text { No. } \end{aligned}$ | Owner | $\|$Depth <br> of <br> well <br> feet) | ```Date of collection``` | Total <br> dissolved <br> solids <br> (calculated) | Calcium (Ca) | $\begin{aligned} & \text { Magnes- } \\ & \text { ium } \\ & (\mathrm{Mg}) \end{aligned}$ | $\|$Sodium and <br> Potassium <br> (Na $\not \subset \mathrm{K})$(calculated) | $\begin{array}{\|l\|} \hline \text { Bicar }- \\ \text { bonate } \\ \left(\mathrm{HCO}_{3}\right) \end{array}$ | $\int_{\left(\mathrm{SO}_{4}\right)}$ | $\begin{gathered} \text { Chloride } \\ \text { (CI) } \end{gathered}$ | $\left\{\begin{array}{l}\text { Total } \\ \text { hardness } \\ \text { as } C a C 0_{3} \\ \text { calculated }\end{array}\right.$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 359 | Albert Soefje | 57 | Oct.20,1936 | 386 | - | $\cdots$ | - | 403 | a/ | 36 | - - |
| 360 | K. Kickeritz | 36 | Nov.18,1936 | 792 | 132 | 33 | 104 | 354 | 248 | 101 | 460 |
| 361 | Enma Rose | 32 | do. | 519 | - | - | - | 268 | 59 | 138 | - |
| 362 | R. Fraft | 40 | do. | 239 | - | - | - | 250 | a/ | 22 | - |
| 363 | August Timmerman | Sr. 50 | do. | 238 | - | - | - | 256 | a/ | 18 | - |
| 364 | E.W. Mueller | 35 | 0ct. 10,1936 | 163 | - | - | - | 134 | a/ | 34 | - |
| 365 | B. Bartles | Spring | Nov.11,1936 | 266 | 93 | 9 | - | 293 | a) | 20 | 271 |
| 367 | Mrs. H. Oelkers | 40 | 0ct.10,1936 | 257 | - | - | $\cdots$ | 250 | a/ | 33 | - |
| 368 | D. Werner | 30 | 10. | 291 | 106 | 6 | - | 244 | 35 | 24 | 288 |
| 370 | W.P.A. test well | 43 | Nov.16,1936 | 9,410 | 781 | 500 | 1,780 | 232 | 2,905 | 3,330 | 4,004 |
| 371 | do. | 34 | do. | 4,802 | - | - | - | 110 | I,759 | 1,420 | - |
| 372 | Henry Voight | 510 | Nov. 26,1936 | 1,148 | 119 | 72 | 194 | 354 | 287 | 302 | 594 |
| 373 | I. Jentsch | 485 | Dec. 4,1936 | 1,647 | 114 | 107 | 322 | 207 | 422 | 580 | 726 |
| 374 | Gus Reinarz | 500 | do. | 1,983 | 1.56 | 117 | 387 | 281 | 505 | 680 | 872 |
| 375 | F.A. Burket | 450 | 0ct.26,1936 | 1,957 | 166 | 110 | 380 | 348 | 500 | 630 | 868 |
| 376 | W.P.A. test well | 27 | Nov.17,1936 | 1,367 | - | - | - | 268 | 291 | 170 | - |
| 377 | Otto Timmermann | 498 | Jan. 6,1936 | 2,300 | 236 | 136 | 390 | 233 | 574 | 820 | 1,148 |
| 378 | J.A. Wetz | 542 | do. | 1,019 | 132 | 33 | 193 | 348 | 245 | 245 | 466 |

a/ Sulphate iess than 10 parts per million.



[^0]:    a) Sulphate less than IO'parts por million.

[^1]:    a/ Sulphate less than 10 parts per million.

