

KYANITE PRO

User Manual

Version 2.0 • October 2026

Field toolkit for drilling personnel —
calculators, field sheets, the well
workspace and reports.



iPhone User Manual

Field calculations, field sheets, the well workspace, Kyanite Ultra and crews — for drilling personnel.

Version 2.0 · Second edition · October 2026

Covers app version 2.0 (build 47)

Support: admin@kyaniteinc.com

kyanitepro.com · app.kyanitepro.com

Engineering aid. Kyanite Pro is a calculation and reference aid. Every result must be independently verified by qualified personnel before it supports an operational decision. Well control decisions follow your company's well control program and the person in charge on location.

© 2026 Kyanite Holdings. Kyanite Pro, Kyanite Ultra, DrillIQ and MudIQ are names of Kyanite Holdings. iPhone and Apple are trademarks of Apple Inc. Pason and Pason DataLink are trademarks of Pason Systems Corp. Screens shown may differ slightly from your version.

Printing: US Letter, double-sided. The inside margin is wider for binding.

Contents

1	About this manual	5
2	Getting around	6
3	First launch	9
4	Using a calculator	10
5	Verification statuses	13
6	The six modules	14
7	Kill sheet	15
8	Cement job sheet	19
9	LCM build sheet	22
10	Chemical inventory	25
11	Location volumes	28
12	Gain / loss data sheet	31
13	Notes and mud checks	36
14	Reference charts and volumes	38
15	Scientific calculator	40
16	Hitch calendar	41
17	Settings	42
18	Kyanite Pro	44
19	Group Access: sharing with a crew	46
20	Crew notifications	49
21	How your work is saved	50
22	Support and feedback	51
PART II — THE WELL WORKSPACE (VERSION 2.0)		52
23	Quick start: set up your well in five minutes	53
24	The current well	56
25	Wells and hole sections	61
26	Rig profiles	65
27	Using well and rig values in a calculator	68
28	Calculation history	69
29	Well records	70
30	Bits & Records	75
31	Well schematic and schematic sheets	81
32	Advanced Hydraulics	82
33	Kick Tolerance	83
34	Mud Trends	84

35	Moving to a new well	85
36	Reports and PDFs	88
37	Crew Dashboard	91
38	Translations	92
39	Announcements	93
PART III — KYANITE ULTRA, YOUR ACCOUNT AND THE WEB		94
40	Kyanite Ultra	95
41	DrillIQ and MudIQ	96
42	Live Rig Dashboard	98
43	Your account, cloud sync and Kyanite on the web	100
44	Crew wells and crew profiles	102
45	Troubleshooting and FAQ	103
46	Glossary	104
APPENDIX A — CALCULATOR INDEX		105
APPENDIX B — PRIVACY POLICY		111
APPENDIX C — TERMS OF USE		115

1 About this manual

Kyanite Pro is a field toolkit for drilling personnel: **133 calculators** across six disciplines, the sheets a crew actually fills in — kill sheets, cement jobs, LCM pills, chemical inventory, location tank volumes — plus notes, reference charts, a scientific calculator and a hitch calendar.

The whole thing runs on the phone. No signal is required to open a calculator, work a kill sheet or gauge a tank, and no account is needed to use any of it. The features that go online are all optional: sharing records with a crew, syncing your wells and saved calculations to the **Kyanite web console**, and asking **DrillIQ** or **MudIQ** a question.

What's new in this edition (build 47). Kyanite Ultra and its two AI engineers, DrillIQ and MudIQ; the Live Rig Dashboard; signing in to sync your wells and saved calculations with the web console at **app.kyanitepro.com**; crew wells and crew profiles; gain / loss sheets shared live with the crew, with a **Losses** column; and account deletion that erases everything held in the cloud. See Part III. A separate *Web User Manual* covers the web console screen by screen.

Read this before you use a result. Kyanite Pro is a calculation and reference aid. It is not a well control program, a hydraulics model or a substitute for engineering judgement. Every result must be independently verified by qualified personnel before it supports an operational decision, and every well control decision follows your company's well control program and the person in charge on location. The full wording is in Appendix C and in the app under **Settings → Calculation Disclaimer**.

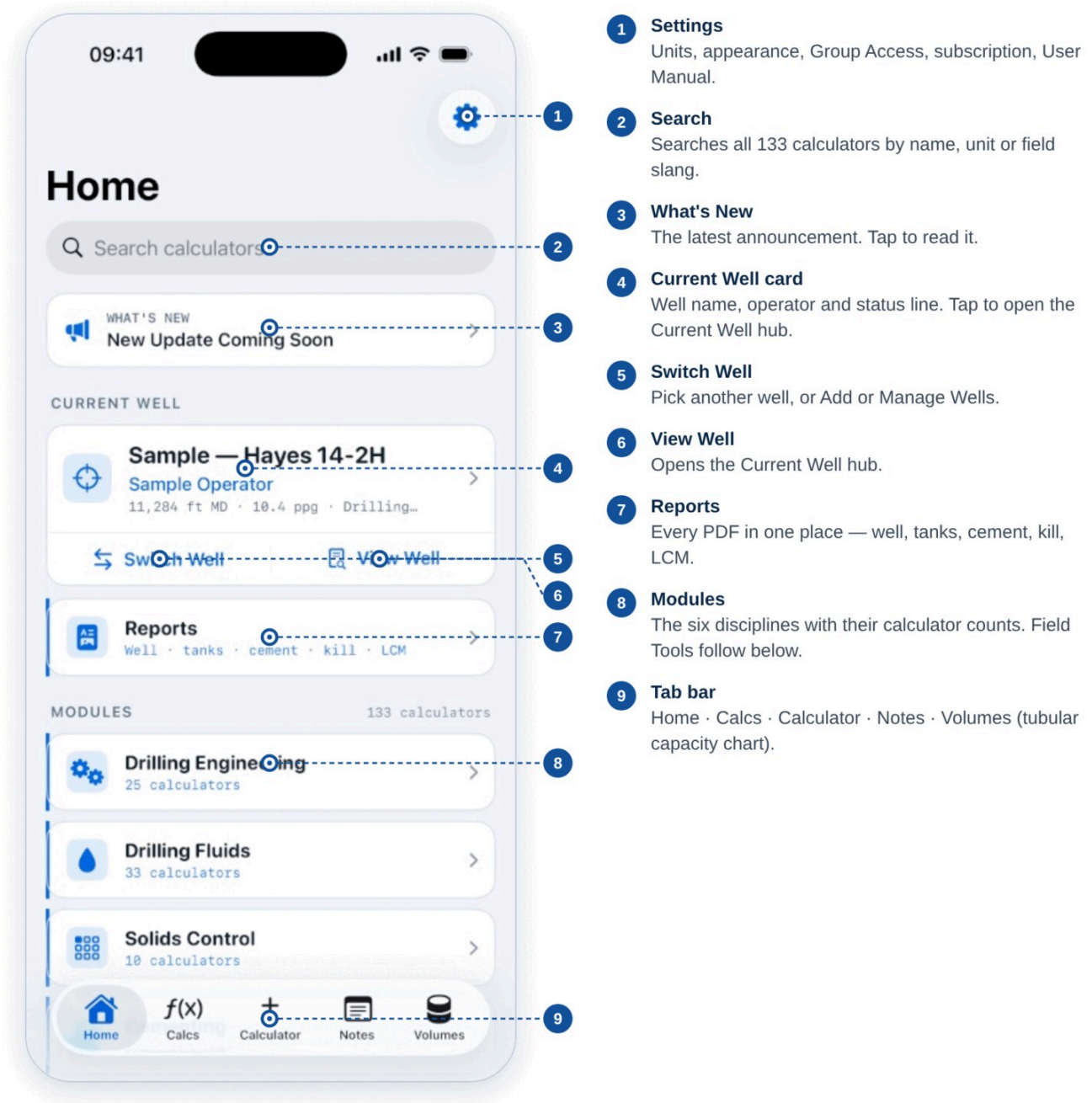
Screenshots are taken from an iPhone. The app also runs on iPad, where the five tabs are replaced by a sidebar; the screens themselves are the same.

2 Getting around

On iPhone there are five tabs along the bottom. There is no "More" list — everything else is reached from the Home dashboard.

TAB	WHAT IT IS
Home	The dashboard: modules, field tools and your favorites.
Calcs	The whole calculator library, searchable, with field sheets and reference charts below.
Calculator	The scientific calculator — a full keypad with a live result.
Notes	Field notes and mud checks.
Volumes	The tubular capacity chart: bbl/ft, ft/bbl and annular volumes. Not Location Volumes.

Home (version 2.0)



Home screen layout

The Home screen has these sections:

- **Current Well** — the well you are on, by **well name and operator**, with depth, mud weight and current operation when entered. Tap the card (or **View Well**) to open it; **Switch Well** picks another well or adds one. Below it, **Reports** opens every PDF in one place. See [The current well](#).
- **Modules** — the six disciplines with a live count of the calculators in each.

- **Field Tools** — Wells, Rig Profiles, Calculation History, Hitch Calendar, LCM Build Sheet, Cement Job Sheet, Kill Sheet, Gain / Loss Sheet, Chemical Inventory, Translations, Scientific Calculator and Notes.
- **Favorites** — appears once you have starred something.

Settings is the gear icon at the top right of Home. It is not a tab.

On iPad

A sidebar replaces the tab bar, with sections for Modules, Field Sheets, Reference Charts and Tools. Three reference screens — the Fluid Dilution Chart, PV Ranges and the Bulk Tank Chart — are currently only reachable from that sidebar, so on iPhone they are not yet listed anywhere.

3 First launch

Three pages, shown once. They cannot be swiped away and there is no skip button.

1. **Welcome** — what is in the app.
2. **Engineering Calculation Disclaimer** — the five paragraphs reproduced in Appendix C. Continuing acknowledges it.
3. **Set up your hitch** — optional. The toggle is on by default, with a start date, days on, days off, and presets for 14/14, 7/7, 14/7, 20/10, 28/14 and 21/21.

Tap **Start Using Kyanite Pro** and you are in. You are never asked to create an account, and you are never asked for notification permission at launch.

4 Using a calculator

Every one of the 133 calculators uses the same screen, so once you have worked one you have worked all of them.

SCREEN LAYOUT

Calculator screen

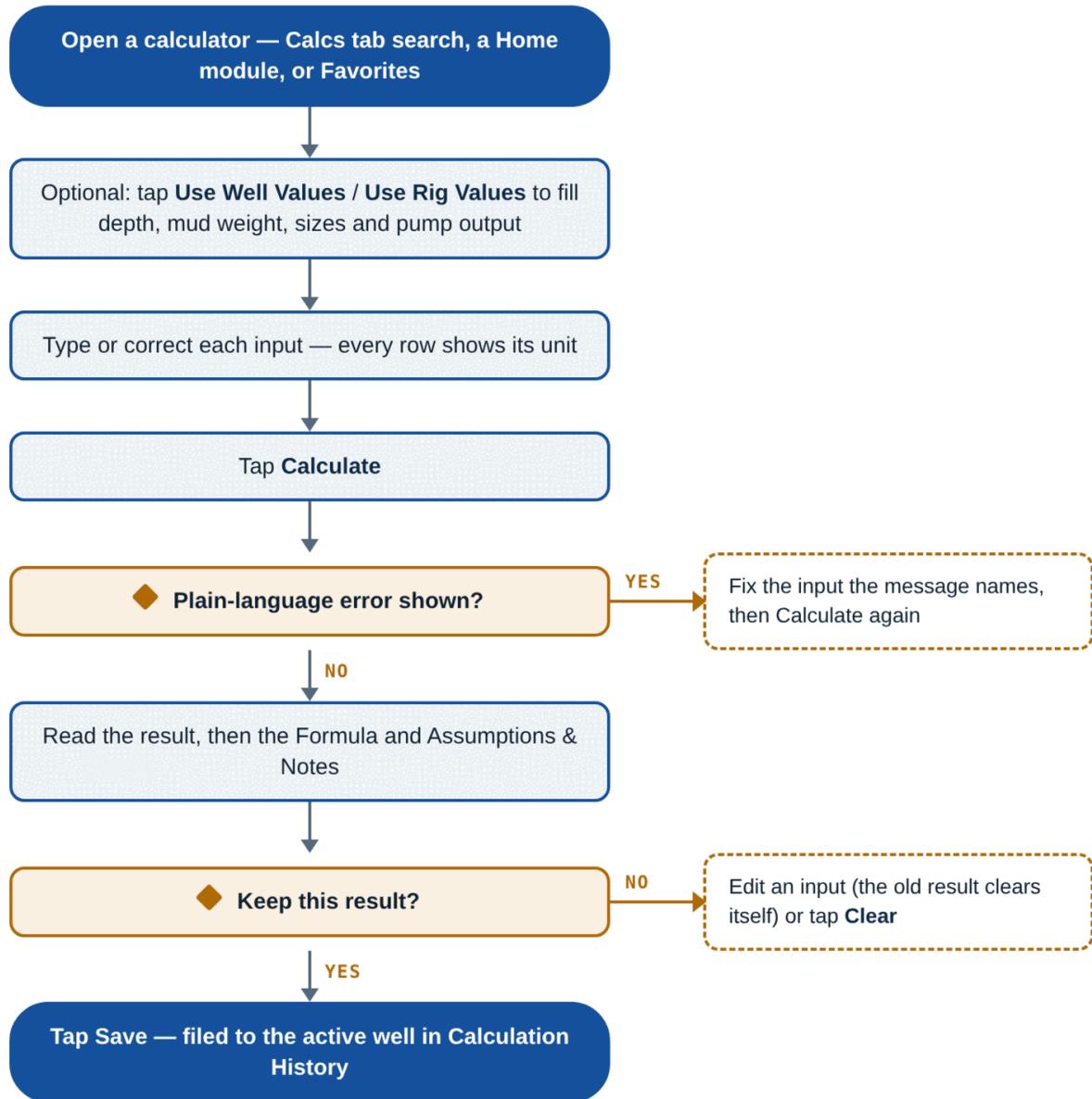
The screenshot shows the 'Annular Capacity' calculator interface. At the top, the status bar shows the time 9:41 and signal strength. The title 'Annular Capacity' is centered. A star icon in the top right corner is labeled with a blue circle and the number 1. Below the title, a summary box contains the text 'Capacity per foot of the annular space between the hole (or casing ID) and the pipe OD.' followed by a green 'VERIFIED' badge, labeled with a blue circle and the number 2. The 'INPUTS' section contains two rows: 'Hole / Casing ID' with a value of 8.5 in and 'Pipe OD' with a value of 5 in, both labeled with a blue circle and the number 3. The 'Result readout' section shows a large blue number '0.05' with 'bbl/ft' and 'ANNULAR CAPACITY' below it, labeled with a blue circle and the number 4. Below this, the 'Secondary results' section shows 'Annular Capacity' with a value of 1.93 gal/ft and 'Length per Barrel' with a value of 21.79 ft/bbl, both labeled with a blue circle and the number 5. The 'Formula & assumptions' section shows a 'Formula' field, labeled with a blue circle and the number 6. At the bottom, there is a blue 'Calculate' button labeled with a blue circle and the number 7, and a grey 'Clear' button labeled with a blue circle and the number 8.

- Favorite star**
Pins the calculator to Favorites on Home.
- Summary & badge**
What it calculates, with its verification status (VERIFIED, NEEDS VERIFICATION or EQUIPMENT SPECIFIC).
- Inputs**
One row per field with its unit. Tap anywhere on the row to type. Use Well / Rig Values appears above when a well or rig is set up.
- Result readout**
The headline answer and its unit. Editing any input clears it.
- Secondary results**
Other forms of the same answer.
- Formula & assumptions**
The equation actually used, then what it takes for granted. Scroll down to read.
- Calculate**
Works the inputs. Plain-language errors appear if something is missing or impossible.
- Clear**
Resets every field and the result.

Calculator screen layout

FLOW CHART

Using a calculator



Flow chart: using a calculator

PART OF THE SCREEN	WHAT IT DOES
Summary card	One line describing the calculator, with its verification badge on the right.
Inputs	One row per field with its unit. Tap anywhere on the row to type. Fields marked <i>Optional</i> can be left blank; some arrive pre-filled with a sensible default.
Result readout	The headline answer in large blue figures. Secondary results follow in their own card.
Formula	The equation actually used. Long-press to select and copy.

PART OF THE
SCREEN

WHAT IT DOES

**Assumptions &
Notes**

What the equation takes for granted. Worth reading once per calculator.

Calculate / Clear

Pinned to the bottom. Clear resets every field and wipes the result.

- **Stale answers are impossible.** Editing any input clears the previous result, so a number on screen always belongs to the inputs above it.
- **Favorites.** The star pins a calculator to the Favorites section on Home.
- **Search.** The Calcs tab searches all 133 by name, module, category, unit and field slang — "lgs", "drilled solids" or "dump" all find the right screen.
- **Errors are in plain language**, e.g. "Oil plus water cannot exceed 100%."

Metric mode does not change the inputs. Setting **Default Units** to Metric (SI) keeps every input in oilfield units and adds a converted line underneath each result.

5 Verification statuses

Every calculator carries a badge saying how far its equation has been checked. Counts are listed under **Settings → Equation Verification**.

STATUS	MEANING
VERIFIED	An established industry equation, or a direct volumetric/mass balance derivation. The large majority of the library.
NEEDS VERIFICATION	The screen is finished, but the equation still needs review against your company's verified reference before operational use. Twelve calculators today.
EQUIPMENT SPECIFIC	The answer depends on manufacturer data you supply — centrifuges, hydrocyclones, motors, MWD batteries.

In a list, a verified calculator shows nothing; the other two show their icon beside the unit. Every calculator's status is marked in Appendix A.

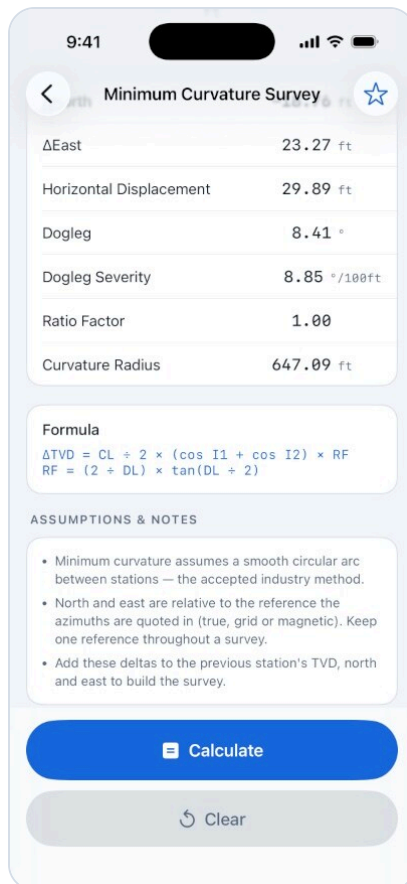
Currently NEEDS VERIFICATION (12): Trip Margin; Dilution; Low Gravity Solids and High Gravity Solids (both in Drilling Fluids and in Solids Control); Alkalinity; Lime Concentration; Dilution Volume; Discard Volume; Equipment Efficiency; Toolface for a Correction.

Currently EQUIPMENT SPECIFIC (6): Centrifuge Calculations; Hydrocyclone Calculations; Total Mix Water with Additive Demand; Slide Footage Required; Toolface from Sensors; MWD Battery Life.

If you have a verified company formula for anything on the first list, send it in — see [Support and feedback](#).

6 The six modules

MODULE	COVERS	COUNT
Drilling Engineering	Capacities, volumes, displacement, circulation and pressure.	25
Drilling Fluids	Mud properties, weighting, treatment, chemistry and slugs.	33
Solids Control	Solids balance, dilution, discard, screens and equipment performance.	10
Cementing	Slurry design, annular volumes, balanced plugs, displacement and differential pressure.	19
Directional & MWD	Survey calculation, well plan geometry, steering and MWD sensor equations.	23
Well Control	Kill weight, circulating pressures, shoe limits, kick analysis and the kill sheet.	23



Directional and MWD module

Full contents in Appendix A.

Home → Field Tools → Kill Sheet, or from the Well Control module. A standard vertical kill sheet worked in field units. Requires Kyanite Pro.

What this sheet is. A calculation aid that checks your arithmetic and keeps your pre-recorded data current. It is not a well control program and it does not make decisions.

Kill sheet

9:41

Untitled Kill Sheet

Gain
Volume gained before the well was shut in

INFLUX HEIGHT 654 ft

TOP OF INFLUX 9,346 ft

INFLUX GRAD. 0.240 psi/ft

Gradient bands as a guide: gas $\approx$ 0.05–0.15, oil $\approx$ 0.3–0.4, salt water $\approx$ 0.4–0.5 psi/ft. The height it depends on is an estimate, so read it as an indication of what you are dealing with.

KILL DATA

11.8 ppg kill mud

Weight-Up Required 0.8 ppg

Exact (Unrounded) 11.269 ppg

Formation Pressure 5,860 psi

Formation EMW 11.27 ppg

INITIAL CIRC. PRESS 950 psi

FINAL CIRC. PRESS 592 psi

MAASP NOW 1,048 psi

MAASP AFTER KILL 777 psi

Kill mud weight is rounded UP to the next 0.1 ppg, as a kill sheet always does. Every number below uses the rounded value.

PRESSURE SCHEDULE Surface to bit 1000 psi

STEP	STROKES	MIN	DP PSI
0	0	0.0	950
1	165	5.5	914

- 1 **... menu**
Report PDF, Duplicate (Blank Kick), Duplicate with Kick Data, Delete.
- 2 **Kick Data**
SIDPP, SICP and Pit Gain — the three numbers you enter when the well is shut in.
- 3 **Influx**
Influx height, top of influx and gradient, walked up the annulus section by section.
- 4 **Kill mud weight**
Rounded UP to the next 0.1 ppg. Everything below uses the rounded value.
- 5 **Kill detail**
Weight-up required, exact unrounded value, formation pressure and EMW.
- 6 **ICP / FCP**
Initial and final circulating pressures.
- 7 **MAASP**
Now, and after the kill mud is in the hole.
- 8 **Step count**
5, 10 or 20 steps for the pressure schedule.
- 9 **Pressure Schedule**
Strokes, minutes and the drill pipe pressure to hold at each step.

Kill sheet layout

The screen is ordered the way it gets used, not the way it gets filled in. Kick data, the kill numbers and the pressure schedule are at the top. Depths, pump, leak-off, drill string and annulus — the half you keep current on a quiet tour — are below.

Filling one in before you need it

1. Tap **+**. A new sheet opens carrying worked example values. **Overwrite them.**

2. Name the sheet and tag the rig or well.
3. Work up from the bottom: **Depths** (hole MD and TVD, shoe MD and TVD), **Mud & Pump** (mud weight, pump output, kill rate, slow circulating rate pressure), **Leak-Off Test**, **Drill String** and **Annulus**.
4. Back out. The row reads **Pre-recorded** with the strokes to bit — that is the ready state.

If the well is shut in

1. Enter **SIDPP**, **SICP** and **Pit Gain** in the Kick Data card at the top.
2. Read **Kill Data**: kill mud weight in large type, weight-up required, the exact unrounded value, formation pressure and EMW, then ICP, FCP, MAASP now and MAASP after the kill.
3. Work the **Pressure Schedule** — strokes, minutes and the drill pipe pressure to hold at each step. Choose 5, 10 or 20 steps.
4. Afterwards tap **Clear** in Kick Data, or use **Duplicate (Blank Kick)**, to return it to the pre-recorded state.

The rounding is deliberate. Kill mud weight always rounds **up** to the next 0.1 ppg, because rounding down kills the well underbalanced. Leak-off and maximum allowable mud weight round **down**, because rounding up claims strength the shoe has not shown. Schedule pressures round down. Everything downstream uses the rounded kill weight, exactly as the paper sheet does.

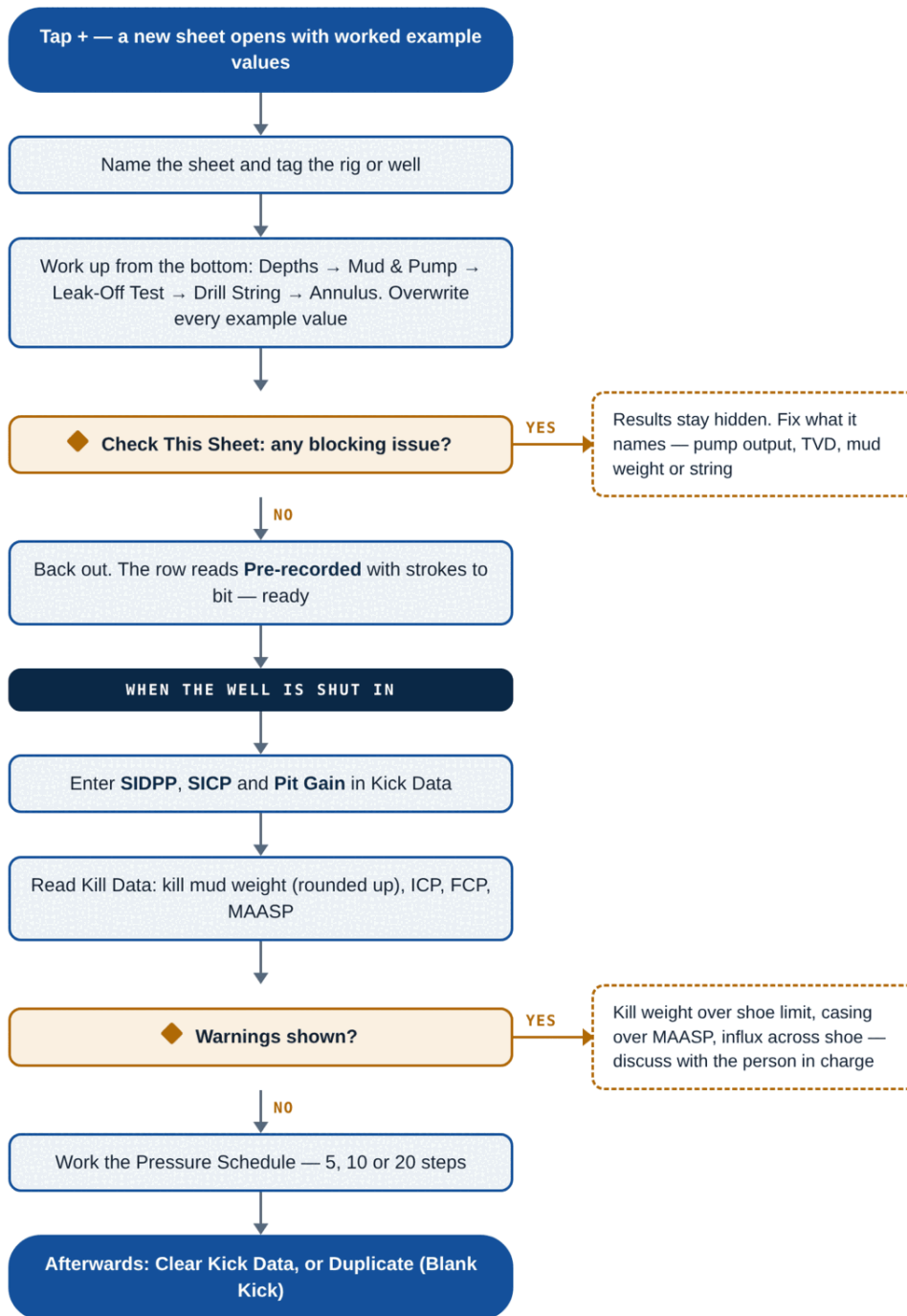
The influx is walked up the annulus section by section, so the tight annulus around the collars fills before the influx spills into the wider one above. A 20 bbl gain therefore stands taller than a single average capacity would suggest, and when the top of the influx climbs past the shoe the sheet says so.

Check This Sheet

- **Blocking** issues hide the results entirely rather than print nonsense — no pump output, no TVD, no mud weight, no drill string.
- **Warnings** are worth a conversation: kill weight above the shoe limit, casing pressure over MAASP, influx across the shoe, casing reading below drill pipe, TVD deeper than MD.
- **Notes** are cross-checks, such as string sections not adding up to the hole depth.

FLOW CHART

Kill sheet



Flow chart: kill sheet

Managing sheets. The ... menu offers Duplicate (Blank Kick), Duplicate with Kick Data and Delete. Rename by editing the Name field. Sheets save as you type.

8 Cement job sheet

Home → Field Tools → Cement Job Sheet. A whole primary cement job on one screen. Requires Kyanite Pro.

SCREEN LAYOUT

Cement job sheet

9:41

Untitled Cement Job

SLURRY REQUIREMENT 2

Lead
6,000 – 8,000 ft · 13.2 ppg
379 sk
107.98 bbl
ANNULUS
107.98 bbl
MIX WATER
77.58 bbl

Tail
8,000 – 9,500 ft · 15.8 ppg
394 sk
82.76 bbl
ANNULUS
80.98 bbl
SHOE TRACK
1.77 bbl
MIX WATER
48.75 bbl

PUMP SCHEDULE 4 stages

STAGE	BBL	CUM BBL	CUM STK
1. Spacer 10.5 ppg	30.00	30.00	342
2. Lead 13.2 ppg · 1.6 ft³/sk sk · 379 sk	107.98	137.98	1,575
3. Tail 15.8 ppg · 1.18 ft³/sk ft³/sk · 394 sk	82.76	220.73	2,520
4. Displacement 9.6 ppg to the float collar	208.91	429.64	4,905
Total Pumped	429.64		4,905

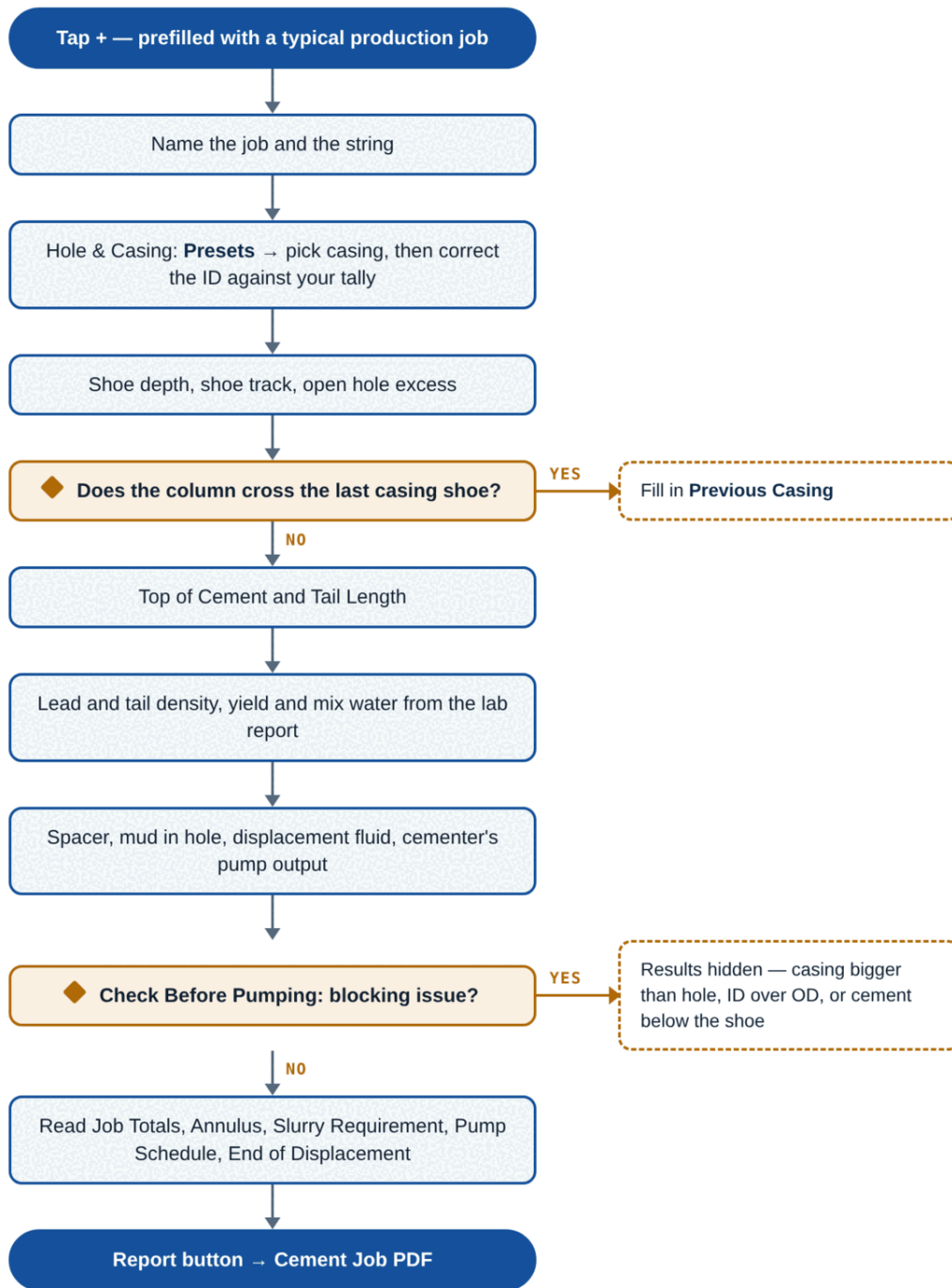
Displacement is calculated to the float collar, leaving the shoe track full of tail. Slow down for the last few barrels and bump on

- 1 **Annulus drawing**
The column to scale — mud, spacer, lead and tail as stacked bands.
- 2 **Lead slurry**
Interval, density, sacks (rounded up), annulus volume and mix water.
- 3 **Tail slurry**
As lead, plus the shoe track volume.
- 4 **Pump Schedule**
Spacer, lead, tail and displacement in pumping order, with cumulative bbl and strokes.
- 5 **Total Pumped**
Total barrels and strokes for the job.
- 6 **Displacement note**
Displacement runs to the float collar; the shoe track stays full of tail.

Cement job sheet layout

FLOW CHART

Cement job sheet



Flow chart: cement job

1. Tap +. The sheet arrives prefilled with a typical production job.
2. Name the job and the string.
3. In **Hole & Casing**, tap **Presets** and pick your casing — 20", 13-3/8", 9-5/8", 7", 5-1/2" or 4-1/2". Presets fill **nominal sizes only**, so correct the casing ID against your tally.
4. Set shoe depth, shoe track and open hole excess.

5. If the column crosses the last casing shoe, fill in **Previous Casing**. Leave at zero for open hole to surface.
6. Set **Top of Cement** and **Tail Length**.
7. Enter lead and tail density, yield and mix water from the lab report.
8. Enter spacer, mud in hole, displacement fluid and the cementer's pump output.
9. Clear anything in **Check Before Pumping**, then read the results.

What it gives you back

CARD	CONTENTS
Job Totals	Total sacks in large type (rounded up), total slurry, cement column, mix water, displacement.
Annulus at End of Job	The column drawn to scale — mud, spacer, lead and tail as stacked bands with their intervals.
Slurry Requirement	Per slurry: interval, density, sacks, annulus volume, shoe track, mix water, cost.
Pump Schedule	Spacer, lead, tail, displacement in pumping order, with volume, cumulative bbl and cumulative strokes.
End of Displacement	Annulus at shoe, inside casing, differential and EMW at the shoe.

Excess is applied to open hole only — never to the cased annulus, never to the shoe track and never to displacement. Displacement is calculated to the **float collar**, not the shoe, because the shoe track stays full of tail after the plug bumps.

A negative differential means the casing is heavier than the annulus and the plug will want to fall — the sheet says so rather than printing a bare negative number.

Check Before Pumping uses the same three severities as the kill sheet. Blocking issues — casing bigger than the hole, ID bigger than OD, cement below the shoe — hide the results. Warnings clamp the input and explain it.

The **⋮** menu offers Duplicate Job and Delete Job.

9 LCM build sheet

Home → Field Tools → LCM Build Sheet. A lost circulation pill is a recipe rather than a single answer, so it gets its own screen. Requires Kyanite Pro.

The screenshot displays the 'Untitled Build' screen in the Kyanite Pro app. At the top, the status bar shows the time as 9:41. The app header includes a back arrow, the title 'Untitled Build', and a menu icon. Below the header, the 'PRODUCTS' section lists two items: 'Calcium Carbonate. Medium20' and 'Cellulosic Fiber — Fine'. Each item has a slider control for quantity, with values of 20.00 lb/bbl and 10.00 lb/bbl respectively. A blue button labeled '+ Add Product' is positioned below the product list. The 'BUILD TOTALS' section shows a large '30.00 lb/bbl' total, along with 'Total Product' (1,500 lb) and 'Sacks Required' (30.00). A note below this section states: 'Turn on Include Cost in Reports in Settings to total the dollars as well.' The 'MIXING NOTES' section contains a text area with the placeholder text 'How and where it gets mixed, spotting depth, pump schedule...'. At the bottom, a blue button labeled 'Export PDF Build Sheet' is visible.

Product	Quantity
Calcium Carbonate. Medium20	20.00 lb/bbl
Cellulosic Fiber — Fine	10.00 lb/bbl

BUILD TOTALS	
Total	30.00 lb/bbl
Total Product	1,500 lb
Sacks Required	30.00

Turn on Include Cost in Reports in Settings to total the dollars as well.

MIXING NOTES

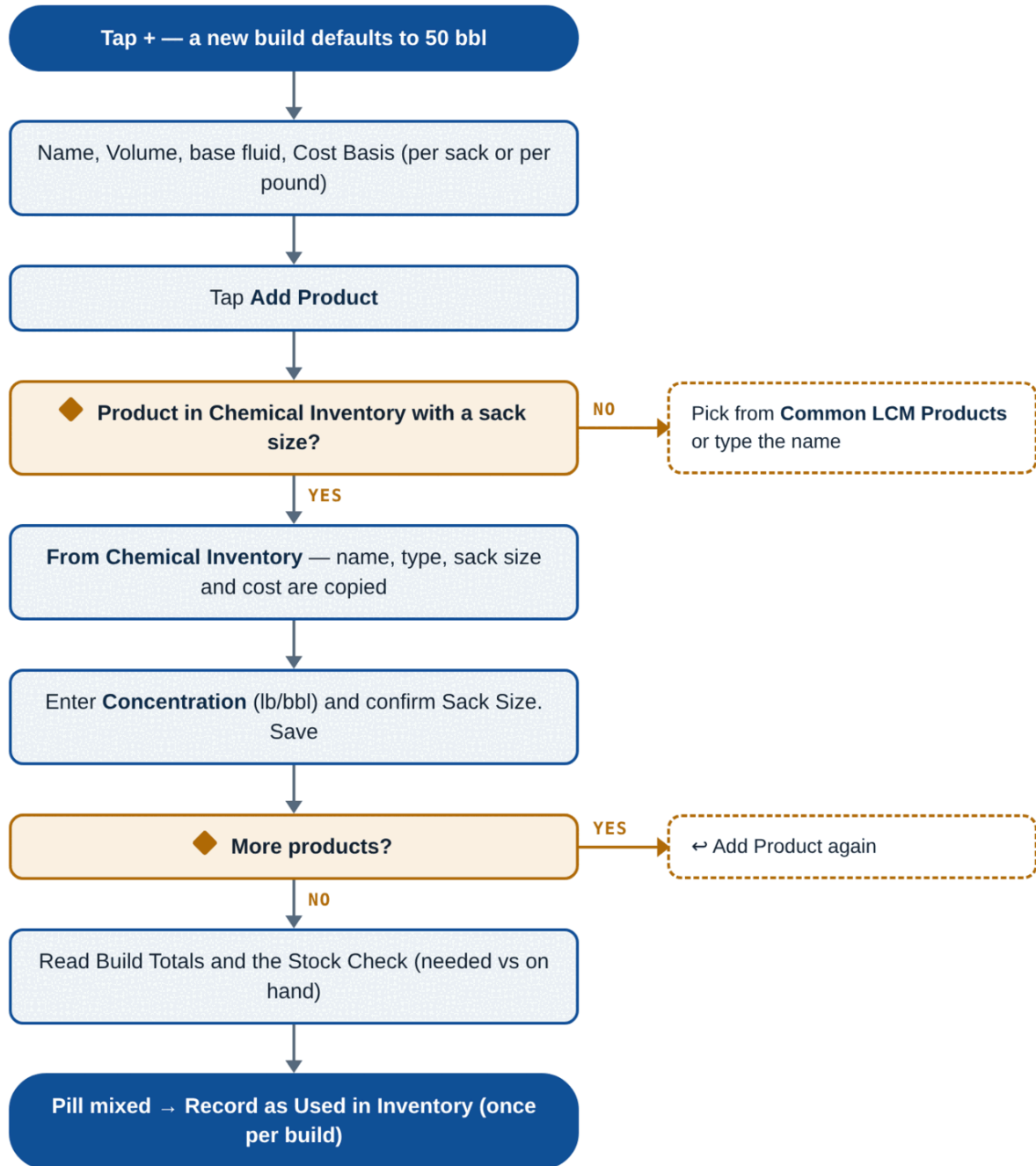
How and where it gets mixed, spotting depth, pump schedule...

Export PDF Build Sheet

LCM build sheet

FLOW CHART

LCM build sheet



Flow chart: LCM build sheet

1. Tap +. A new build defaults to 50 bbl.
2. Name it, set the **Volume**, optionally the base fluid, and confirm the **Cost Basis** — per sack or per pound.
3. Tap **Add Product**. Pick **From Chemical Inventory**, pick from **Common LCM Products** (calcium carbonate, cellulosic fibre, ground nut hull, mica, cottonseed hulls, sized salt, graphite, cedar fibre), or type the name in.

4. Enter the **Concentration** in lb/bbl and confirm the **Sack Size** from your product data sheet. Save.
5. Repeat for each product, then read Build Totals.

The sheet derives:

Total lb = lb/bbl × build volume
Sacks = total lb ÷ lb per sack
Build lb/bbl = Σ lb/bbl of every product
Cost per bbl = total cost ÷ build volume
% of build = product lb/bbl ÷ build lb/bbl

Nothing derivable is stored, so correcting one concentration updates every total at once. Each product's share of the build is drawn as a bar.

Pulling products from inventory

A product in your chemical inventory that has a **Sack Size** recorded can be dropped straight into a build. Choosing one copies the name, the category as the product type, the sack size and the cost, converted onto the build's basis. **The concentration is never filled in for you.**

Linked lines show a **Linked to inventory** banner with today's stock on hand, and drive the **Stock Check** card: what the build needs, what is on hand, and either what is left after mixing or how much you are short.

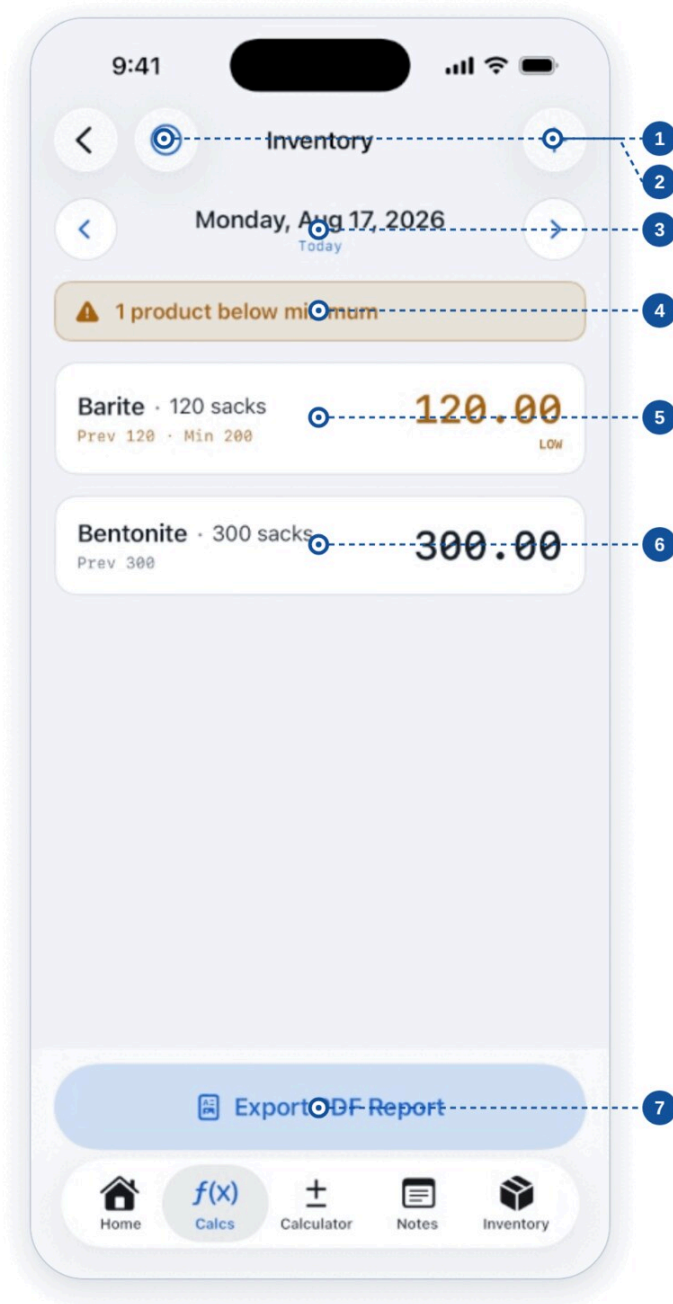
Recording a pill as used can only be done once. **Record as Used in Inventory** writes the required quantities into today's Used column for every linked product and stamps a **Mixed: <build name>** note on the entry. A build can never be posted twice. Note that a **duplicated** build does not carry that flag, so a copy can be posted again.

10 Chemical inventory

Home → Field Tools → Chemical Inventory. A daily ledger of chemical stock that rolls over on its own.
Requires Kyanite Pro.

SCREEN LAYOUT

Chemical inventory

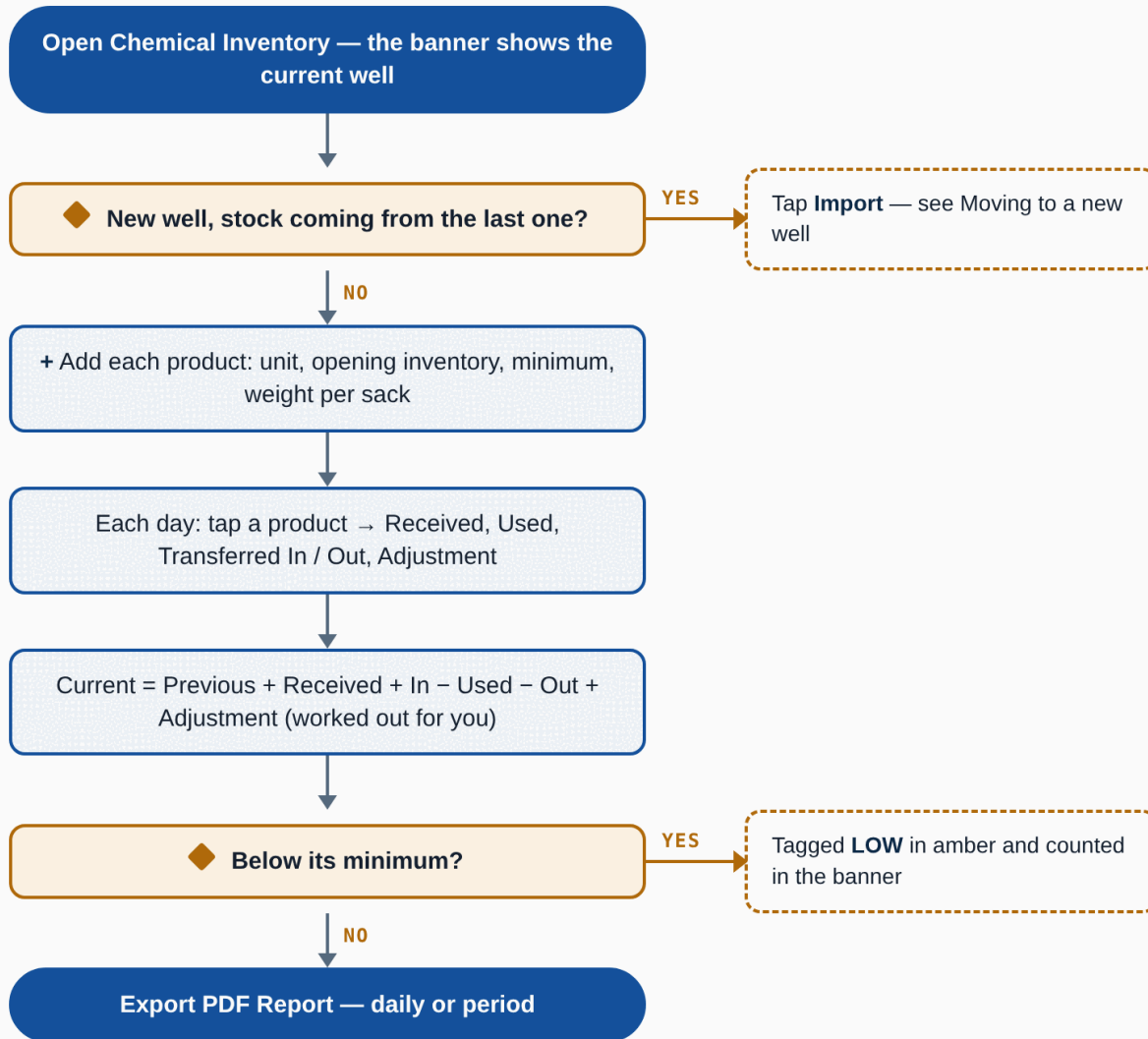


- 1 Filter menu**
Sort, Go to Today, Import from Another Well.
- 2 Add product**
Name, unit, opening and minimum inventory, weight per sack.
- 3 Day navigator**
Step back and forward through days. Balances carry forward automatically.
- 4 Low stock banner**
Counts products below their minimum.
- 5 LOW product**
Current balance in amber, with previous balance and minimum.
- 6 Product card**
Tap to enter Received, Used, Transferred In / Out and Adjustment.
- 7 Export PDF Report**
Daily or period report for the well.

Chemical inventory layout

FLOW CHART

Chemical inventory



Flow chart: chemical inventory

Adding a product

1. Tap **+** and enter the product name, manufacturer and category.
2. Pick the **Unit** — sacks, drums, buckets, totes, pallets, gallons, barrels, pounds, units or a custom label.
3. Set **Opening Inventory** to what is in the shack right now, and a **Minimum Inventory** to arm the low stock warning.
4. Fill in **Weight per sack** if you want the product usable on an LCM build sheet.

Each day

Tap a product and fill in Received, Used, Transferred In, Transferred Out and Adjustment. Adjustment is the only field that accepts a negative. Add a day note if it needs explaining.

$\text{Current} = \text{Previous} + \text{Received} + \text{Transferred In} - \text{Used} - \text{Transferred Out} + \text{Adjustment}$

Balances are derived, never stored. Today's previous balance is yesterday's closing balance, even if days were skipped. Correcting an older day automatically shifts every later balance. Changing the opening inventory shifts the entire history.

A product below its minimum is tagged **LOW** in amber, and a banner counts them at the top of the day. A minimum of zero disables the warning for that product. **History** inside a product lists every recorded day with its movements and closing balance.

Sort by name, category, low stock first or quantity from the filter icon. **Go to Today** jumps back after browsing history.

Inventory is kept per well

From version 2.0, the chemicals on your phone belong to a well. The banner at the top of the screen shows which well's stock you are looking at (well name and operator). Switching the current well switches the inventory. Stock you entered before 2.0 is given to your current well the first time you open Inventory, so nothing goes missing.

Moving rigs? Tap **Import** on the banner (or **Import from Another Well** in the filter menu) to bring the stock you came with. See [Moving to a new well](#).

Crew inventory (the shared side of the Mine / Crew switch) is not split by well — the crew is its scope.

11 Location volumes

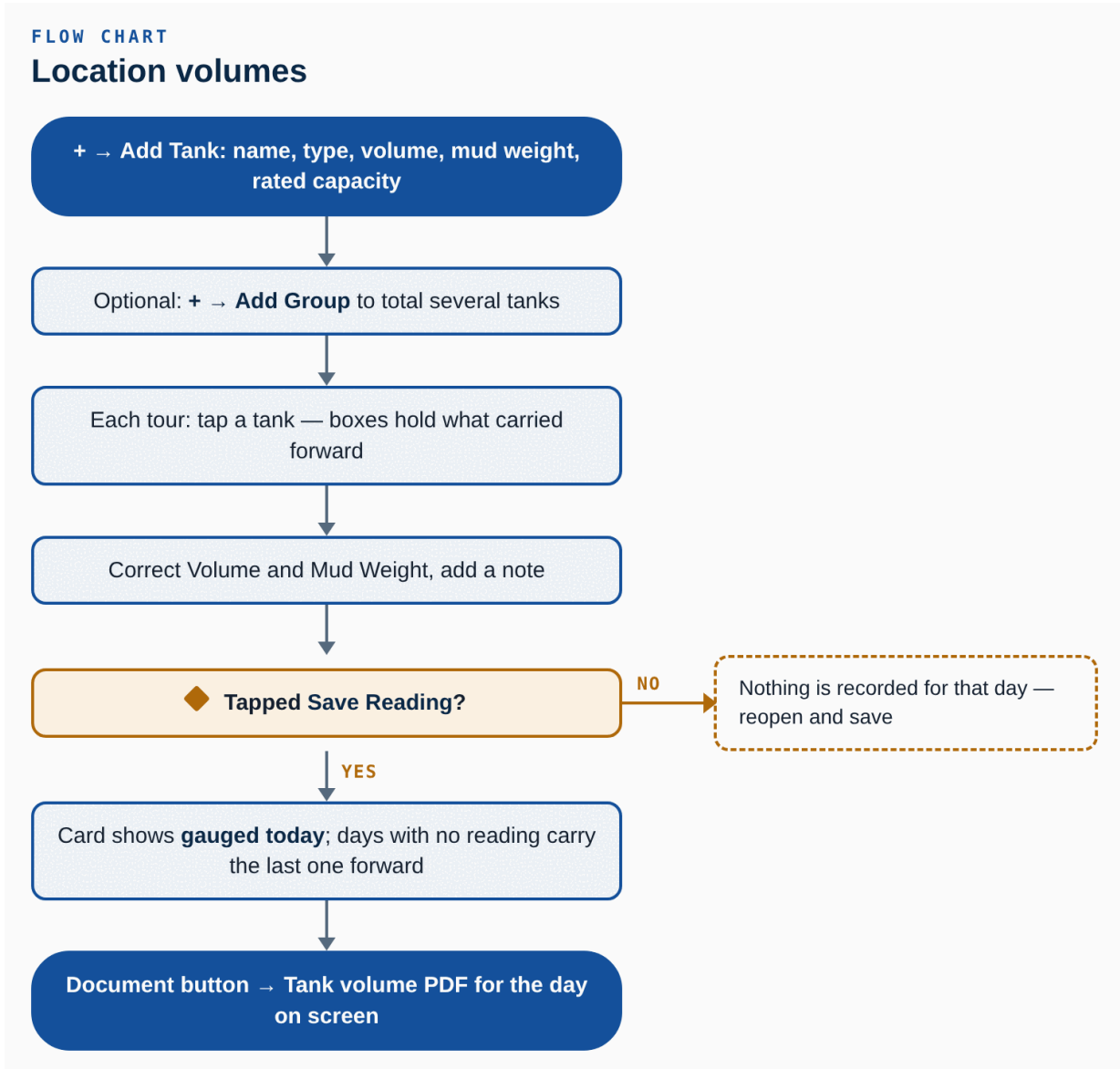
Every tank on location — volume, mud weight and grouped totals. Reach it from **Home → Drilling Fluids → Location Volumes** on iPhone, or the Field Sheets section of the iPad sidebar. Requires Kyanite Pro.

Location Volumes is not the Volumes tab. The **Volumes** tab is the tubular capacity chart. **Location Volumes** tracks the tanks on your location and lives under Drilling Fluids.

Setting up

1. Tap **+** → **Add Tank**.
2. Name it and pick a type: OBM, WBM, Fresh Water, Cement, Brine, Bulk, Trash or Other.
3. Enter what is in it now, the mud weight, and the rated capacity.
4. Repeat for every tank on location.
5. Optionally **+** → **Add Group** to combine tanks and see a collective volume. A tank can be in more than one group.

Gauging each tour



Flow chart: location volumes

1. Tap the tank. The boxes are pre-filled with whatever carried forward.
2. Correct the Volume and Mud Weight, add a note if needed.
3. Tap **Save Reading**.

Tank readings need an explicit save. Unlike every other screen, the tank day editor does **not** save as you type. Back out without tapping **Save Reading** and nothing is recorded against that day.

A tank card shows **gauged today** or **carried over**. Tank readings are **absolute gauge readings, not movements**: the state on any day is the most recent reading on or before it. A day with no reading carries the last one forward. **Clear This Day's Reading** deletes just that day and falls back to the reading before it.

This is the key difference from Inventory: back-dating a tank reading only affects days between it and the next later reading, whereas back-dating an inventory movement cascades through every later balance.

The top of the screen totals everything on location, with a breakdown by category and any group totals. A tank gauged above its rated capacity is flagged amber; a tank with no rated capacity never warns and shows no fill bar.

Tanks are kept per well

Like inventory, your tanks and groups belong to the current well from version 2.0, shown on the banner at the top. Tanks you set up before 2.0 are given to the current well the first time you open the screen. **Import** brings the tanks, groups, volumes and mud weights from the last well — see [Moving to a new well](#).

Tank volume PDF

The **document** button at the top right creates a PDF of every tank for the day on screen: a summary, totals by category, each tank's capacity, volume, mud weight, % full and whether it was **gauged** that day or **carried** from an earlier reading, group totals, and a notice for any tank above its rated capacity. The search filter is ignored — the report always lists every tank.

Home → Field Tools → Gain / Loss Sheet, or from the Drilling Fluids module. The hourly pit balance, worked for a full 24 hours. Requires Kyanite Pro.

The idea is the one every mud hand already works on paper. Each hour you know what the pits *should* have done — the new hole takes mud away, anything mixed or transferred in puts mud back — and you know what they *actually* did from the PVT. The difference is the **net**. A net that will not settle around zero is usually the earliest sign of a kick or of losses, well before anything else shows up.

Gain / loss data sheet

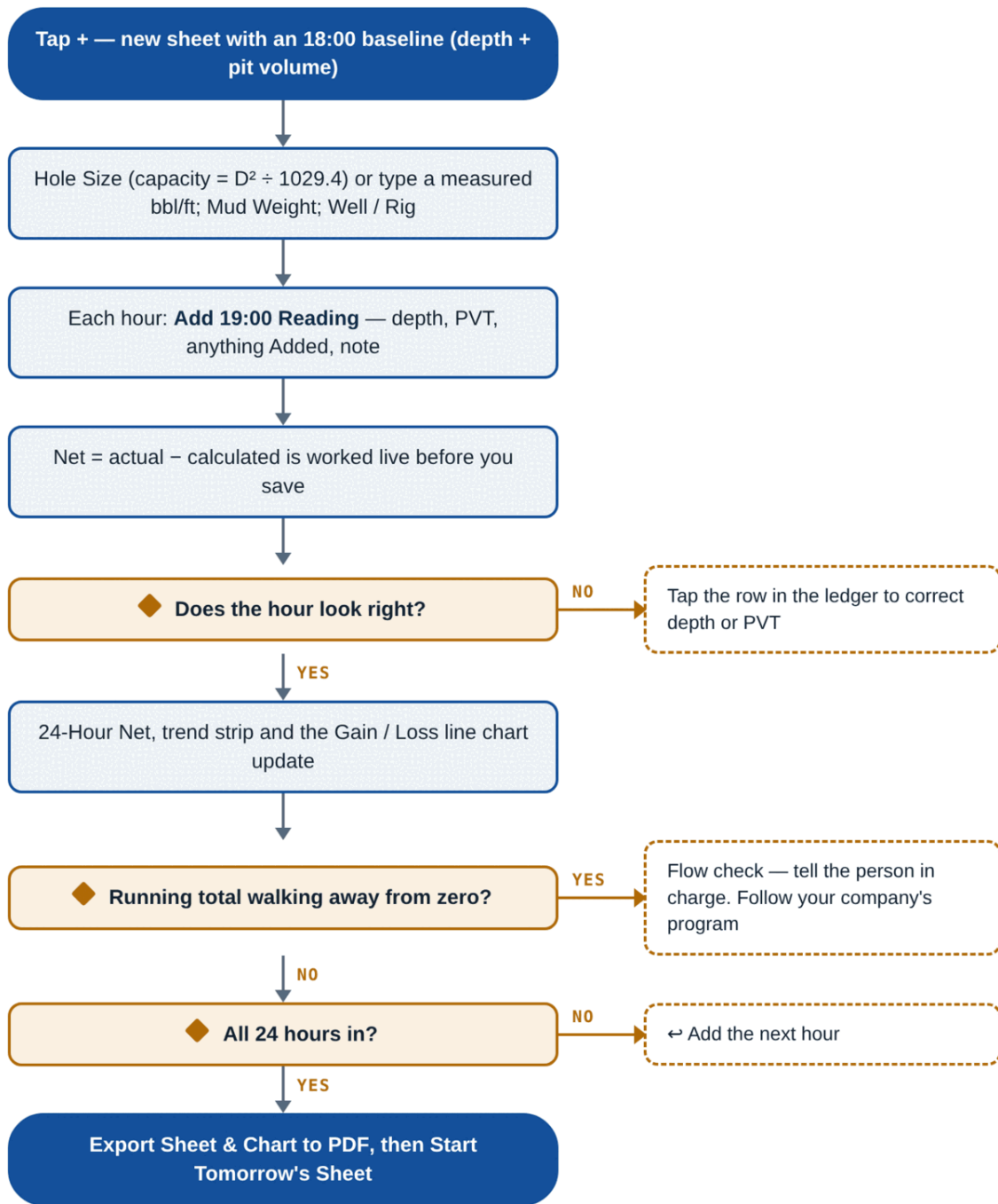


- 1 ... menu
Export PDF (Sheet & Chart), Export as Text, Start Tomorrow's Sheet, Delete.
- 2 **24-Hour Net**
Signed running net with a verdict: Balanced, Gaining or Losing.
- 3 **Hours worked**
Hourly readings in so far, out of 24.
- 4 **Trend strip**
Cumulative net against zero at a glance.
- 5 **Day totals**
Footage drilled, volume added and what the hole took.
- 6 **Largest single hour**
The biggest one-hour swing on the sheet.
- 7 **Chart legend**
Solid = running total. Dashed = each hour on its own.
- 8 **Gain / Loss line chart**
Hour of day along the bottom; above zero is a gain, below a loss. Draws from the first reading.
- 9 **Export Sheet & Chart to PDF**
Header, summary, the chart, full hourly ledger, tour totals and notes.

Gain / loss data sheet layout

FLOW CHART

Gain / loss data sheet



Flow chart: gain / loss data sheet

Starting a sheet

Tap **+**. A new sheet opens with a single **baseline** line at 18:00 — the depth and pit volume you are handed at tour change. Nothing is worked against the baseline; it is what the first hour is measured from. Fill in:

- **Hole Size.** Sets the hole capacity in bbl/ft from $D^2 \div 1029.4$.

- **Hole Capacity.** Editable. Type over it to carry a measured figure instead — a washed-out hole rarely takes the textbook number, and the sheets this was built from run 0.088 and 0.083 bbl/ft on the same 8-3/4" hole. Once edited it is marked *measured* and the hole size will not overwrite it. A one-tap button puts it back on the calculated value.
- **Mud Weight** and **Well / Rig** are recorded on the header.

Each hour

Tap **Add 19:00 Reading** and the fields open with the previous hour's depth and pit volume already in them, because you are reading a gauge that has moved a little, not entering a number from nothing. Type what changed, plus anything **Added** that hour, any **Losses** — known losses out of the active system: dumped, transferred out, solids-control discard — and a note if something happened — *dust up, centrifuge off, SC transfer 24 bbls*.

Known losses are taken out before the net is worked, so a planned dump does not read as the hole taking mud. They show on the ledger row as *loss -x* and are totalled as **Known losses** on the sheet, in the PDF and in the CSV.

Sharing a sheet with the crew

On a crew, gain / loss sheets have the same **Mine / crew** switch as the other shared screens. Crew sheets are *shared live with your crew · graph & PDF on the web too: members as well as admins can log readings*, the same way members gauge tanks, and every phone and the web console sees the new hour within seconds.

The net for that hour is worked live above the fields, with the footage, the calculated change and the actual change broken out, so a fat-fingered depth is obvious before you save it.

Reading the sheet

- **24-Hour Net** at the top, signed, with a plain-language verdict: *Balanced, Gaining* or *Losing*. Gains read warm, losses read cool — deliberately not red/green, because a gain is not "bad" and a loss is not "good", they are different problems.
- **Gain / Loss Chart** — right under the net card; see *The chart* below.
- **Cumulative trend strip.** One line against the zero axis. A single hour is noisy; what matters is whether the running total keeps walking away from zero.
- **Hourly ledger.** Time, depth, PVT, added and net across the top, with footage, hole loss, calculated and actual underneath each row. Tap any row to correct it. The tour change is drawn as a visible break.
- **By Tour.** Nights, days and the 24-hour figure. Every hour counts once and the two tours always add back up to the day — worth saying because a hand-built spreadsheet almost always sums one row short at the tour boundary and quietly drops an hour out of the day.

Finishing and carrying on

At 24 hours the sheet is complete. **Start Tomorrow's Sheet** in the ... menu opens the next day with the hole size, capacity and tour setup copied and this sheet's last depth and pit volume already in as the baseline — the way the next day's paper sheet is started from the bottom line of today's.

The chart

Directly under the 24-Hour Net, the **Gain / Loss Chart** card draws the whole day hour by hour. It starts from the baseline at 0 bbl, so the line appears as soon as the first hourly reading is in:

- **Solid line** — the running total (cumulative net).
- **Dashed line** — each hour's own net (actual – calculated).
- The dashed zero line across the middle. Above zero is a gain, below is a loss.

The hour of the day runs along the bottom; barrels up the side, signed.

Exporting

- **Export Sheet & Chart to PDF** (button under the chart, or **Export PDF** in the ... menu) builds a PDF with the header (hole size, capacity, mud weight, start hour), the 24-hour summary, the **Gain / Loss line chart** (drawn as sharp vector lines, with its legend and hour axis), the full hourly ledger — time, depth, footage, hole, added, calculated, actual, net and cumulative — any hour notes, tour totals and sheet notes. Hours of ± 2 bbl or more are highlighted. It opens full screen; share from there.
- **Export as Text** hands the sheet over as a fixed-width text block that pastes into a morning report looking like the sheet it came from.

A trend that will not settle is a reason to shut in and check, not a number to explain away. Flow checks and well control decisions follow your company's program and the person in charge on location.

13 Notes and mud checks

The **Notes** tab is quick capture with no ceremony — no save button, no folders. **Free**, no subscription required.

9:41

Note

Total Hardness — mg/L

RETORT & SOLIDS

Sand Content — %

Solids — %

Water — %

Oil — %

MBT — lb/bbl

OIL-BASED MUD

Electrical Stability — volts

Excess Lime — lb/bbl

Water Phase Salinity — %

Only filled in on oil-based mud.

CALCULATED

PLASTIC VISCOSITY 22 cP

YIELD POINT 18 lb/100

Anything the numbers don't cover — treatments, what changed, what to watch...

Note with mud check

Notes carry a title, body, category, an optional rig or well tag and a pinned flag. Seven categories tag and tint a note: **General, Mud Check, Handover, Safety, Equipment, Supplies, Follow Up**.

The list has search, category filter chips for the categories actually in use, and a Pinned section. Long-press a row to pin or delete. A note opened and left completely blank deletes itself on the way out.

The mud check editor

Tag a note **Mud Check** and a full check sheet appears:

CARD	FIELDS
Mud properties	Mud Weight (ppg), Funnel Viscosity (s/qt), Temperature (°F)
Viscometer	600, 300, 200, 100, 6 and 3 RPM dial readings; 10 Sec Gel, 10 Min Gel
Filtration	API Fluid Loss (mL), API Cake (1/32"), HTHP Fluid Loss (mL), HTHP Temp (°F)
Chemistry	pH, Pm, Pf, Mf, Chlorides, Total Hardness

CARD	FIELDS
Retort & solids	Sand Content, Solids, Water, Oil (%), MBT (lb/bbl)
Oil-based mud	Electrical Stability (volts), Excess Lime (lb/bbl), Water Phase Salinity (%)
Calculated	Plastic Viscosity, Yield Point, Oil/Water Ratio

Enter the 600 and 300 rpm readings and PV, YP and the oil/water ratio appear in the green **Calculated** card. Those are never stored — correct a dial reading and they move with it.

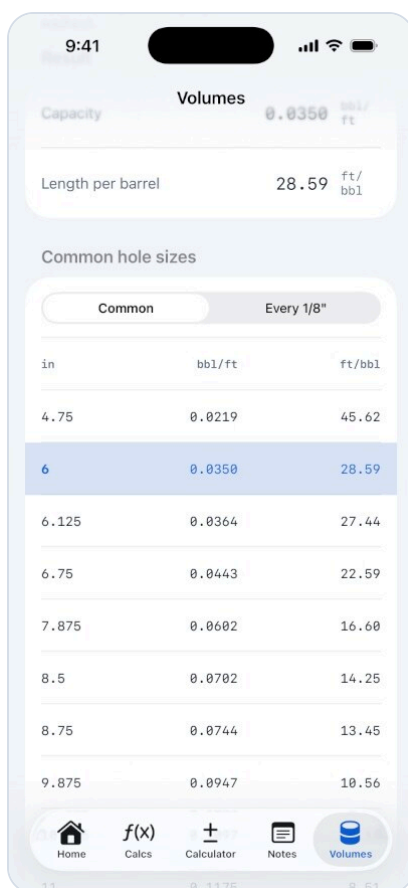
Blank is not zero. Every box may be left empty. A check where the HTHP was skipped shows nothing for it rather than a zero, because a recorded zero and a reading nobody took are very different things to whoever reads it later. Clearing a box sets it back to nothing, not to zero.

Searching notes matches the title, body, location tag, category **and every recorded mud check reading**, so searching a mud weight finds the check it was recorded on.

The **⋮** menu offers **Share Note** and **Copy Note**, producing a tidy plain-text version with only the groups you actually filled in.

14 Reference charts and volumes

The charts a crew would otherwise have taped to the mud shack wall. **None requires a subscription.**



Volumes chart

TOOL	WHAT IT DOES
Volumes	Enter a hole or casing ID and a length for capacity (bbl/ft), length per barrel (ft/bbl) and total volume. Add a string OD for the annulus. Table runs every 1/8 in from 4-3/4 in to 36 in.
Shaker Screens	Record your rig's screens — name, manufacturer, API designation, cut point and conductance from the API RP 13C label. Links to the screen mesh / micron calculator.
Fluid Dilution Chart	Flow rate by stopwatch: time a known container filling and read the rate off. Carries barrels over a 12 and 24 hour tour.
PV Ranges	Recommended PV and total solids windows for 8.6–19.0 ppg. Enter a mud weight for its window; add PV or retort solids and each is graded below / in range / above.
Bulk Tank Chart	Sacks by ladder rung, with an animated silo diagram. Edit the measurements so the ladder matches the one you are climbing.

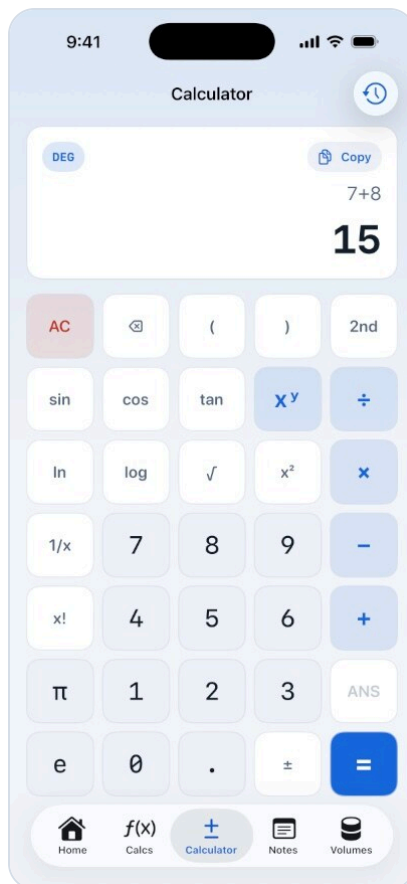
Typing a value scrolls the chart to the matching line and highlights it.

Three charts are iPad-only at the moment. The Fluid Dilution Chart, PV Ranges and the Bulk Tank Chart are currently reachable only from the iPad sidebar. Volumes and Shaker Screens are available on both.

PV Ranges are guideline ranges for a **water-base mud** — an invert carries a different solids balance, and your mud program comes first.

15 Scientific calculator

The **Calculator** tab is a real expression calculator, not a chain calculator. **Free.**



Scientific calculator

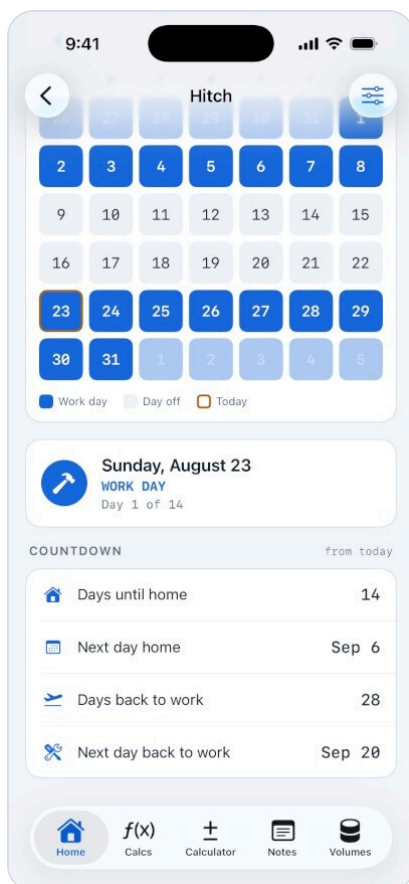
$2+3\times 4$ is 14, not 20. $3(4+5)$ is 27, 2π works, and an unclosed bracket is closed for you. The result is evaluated live underneath the expression; **=** commits it to the session history.

FEATURE	DETAIL
Functions	sin, cos, tan and inverses; ln, log, e^x , 10^x , $\sqrt{}$, $\sqrt[3]{}$, x^2 , x^3 , $1/x$, $ x $, $x!$, %
DEG / RAD	The chip in the display toggles angle mode, shared with Settings.
2nd	Swaps the function column in place; disarms after one key.
ANS	Inserts the last committed answer.
Copy	Puts the raw unformatted result on the clipboard.
History	The clock icon lists this session's calculations. Session only, capped at 30, not kept between launches.

Domain errors are explained rather than fudged: *ln needs a value greater than zero*, and $\tan(90^\circ)$ is refused instead of returning an absurd number.

16 Hitch calendar

Home → Field Tools → Hitch Calendar, or Settings → Hitch Settings. Free, entirely on the device.



Hitch calendar

Set a rotation start date and your days on and days off. Any combination works, including uneven ones such as 14 on / 7 off. Presets cover 14/14, 7/7, 14/7, 20/10, 28/14 and 21/21.

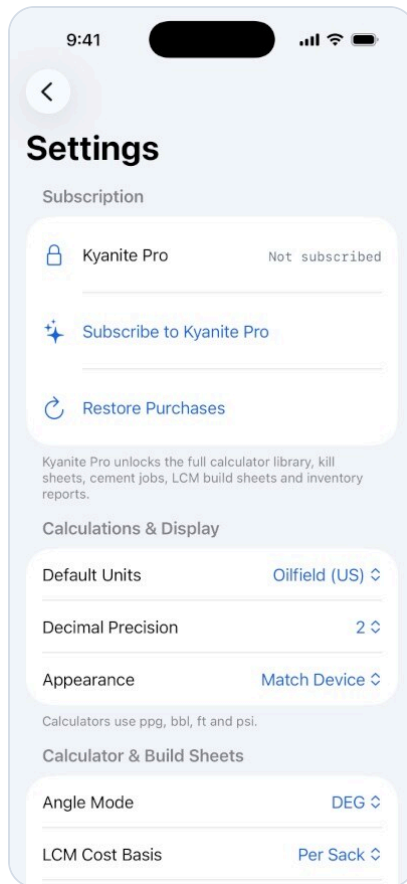
The calendar projects indefinitely **forwards and backwards** from the start date, and is correct across month, year and leap-year boundaries. Work days are filled blue, days off grey, today ringed amber.

Tap any day to select it. The status card says whether it is a work day or a day off and where it falls in the rotation; the countdown card gives days until home, next day home, days back to work and next day back.

Countdowns follow the selected day, not always today. The card header tells you which — *from today* or *from selected day*.

17 Settings

The gear icon at the top right of Home.



Settings

SETTING	OPTIONS / EFFECT
Default Units	Oilfield (US) or Metric (SI). Metric keeps oilfield inputs and adds a converted line under each result.
Decimal Precision	0–4 places, default 2.
Appearance	Match Device, Light or Dark.
Angle Mode	DEG or RAD, shared with the scientific calculator.
LCM Cost Basis	Per Sack or Per Pound, for new build sheets.
Group Access	Crew sharing. Shows crew name and role, or <i>Not set up</i> .
Hitch Settings	Your rotation, or <i>Not set</i> .
Low Inventory Warnings	On by default. Controls the banner counting products below minimum.

SETTING	OPTIONS / EFFECT
Include Cost in Reports	Off by default. Turns on every cost field and column on cement job and LCM sheets.
Default Inventory Unit	The unit new products start with. Sacks by default.
Equation Verification	How many calculators carry each status, and what each means.
Subscription	Your plan (Free, Kyanite Pro or Kyanite Ultra), Discover Kyanite Ultra, Upgrade to Kyanite Ultra, Manage Subscription and Restore Purchases .
Ultra App Icon	Ultra members can switch to the Ultra app icon.
Kyanite on the Web	Sync status — <i>Sign in to sync</i> , <i>Syncing...</i> or <i>Synced</i> with the time. See chapter 43.
Priority Tech Support	Ultra only: your messages are flagged Priority and answered first.

The **Support** section holds **Send a Suggestion** and a direct email link. **About** covers the calculation disclaimer, the **User Manual** link, the in-app privacy summary, what is included and the app version.

The app is free to install and a useful amount of it is free forever. There are three levels: **Free**, **Kyanite Pro** and **Kyanite Ultra**. Ultra includes everything in Pro.

Free, with no account and no signal

- **20 calculators**, chosen to cover all six disciplines
- The full scientific calculator
- Notes and mud checks
- Every reference chart and volume table
- The hitch calendar
- Browsing the whole calculator catalogue

The free calculators are: Annular Capacity, Pipe Capacity, Pump Output, Hydrostatic Pressure (Drilling Engineering); Mud Weight, Barite Addition, Plastic Viscosity, Solids (Drilling Fluids); Solids Percentage, Low Gravity Solids, Flow Rate (Solids Control); Slurry Yield & Density, Sacks Required, Casing & Shoe Track Volume (Cementing); Minimum Curvature Survey, Dogleg Severity, Build Section Geometry (Directional & MWD); Hydrostatic Pressure, Kill Mud Weight, MAASP (Well Control).

Kyanite Pro adds

- The remaining calculators — 133 in total
- Kill sheets, cement job sheets, LCM build sheets and gain / loss data sheets, each with its PDF
- Chemical inventory and location volumes
- Group Access, so a crew can share records

Kyanite Ultra adds

- **DrillIQ** and **MudIQ**, the AI engineers, with 100 questions a month
- The **Live Rig Dashboard**
- The **well workspace** (Part II): wells, rig profiles, using well and rig values, calculation history, well records, Bits & Records, schematics, Advanced Hydraulics, Kick Tolerance, Mud Trends, moving to a new well
- **Reports & End of Well**, the **Crew Dashboard** and **Translations**
- **Priority Tech Support**

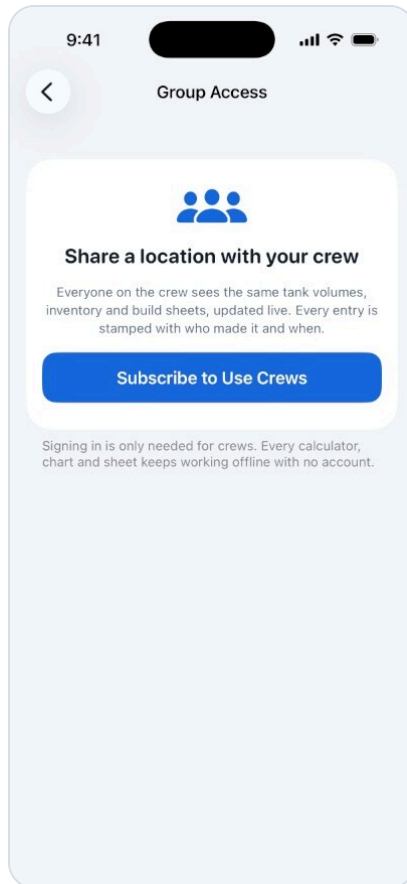
Chapter 40 covers Ultra in full.

Pro is **\$3.99 per month with a 3-day free trial**, or **\$19.99 per year**. Prices in other territories are Apple's equivalent price points. **Restore Purchases** is on the paywall and in **Settings** → **Subscription**. Manage or cancel in **Settings** → **Apple Account** → **Subscriptions**.

It keeps working offline for 30 days. Your subscription is never gated on a live network call. Once checked, Pro stays unlocked for 30 days with no connection at all, so a long hitch cannot lock you out on the rig floor. Settings tells you how many days are left.

Locked calculators still appear in every list with a padlock, so you can always see what is in the library.

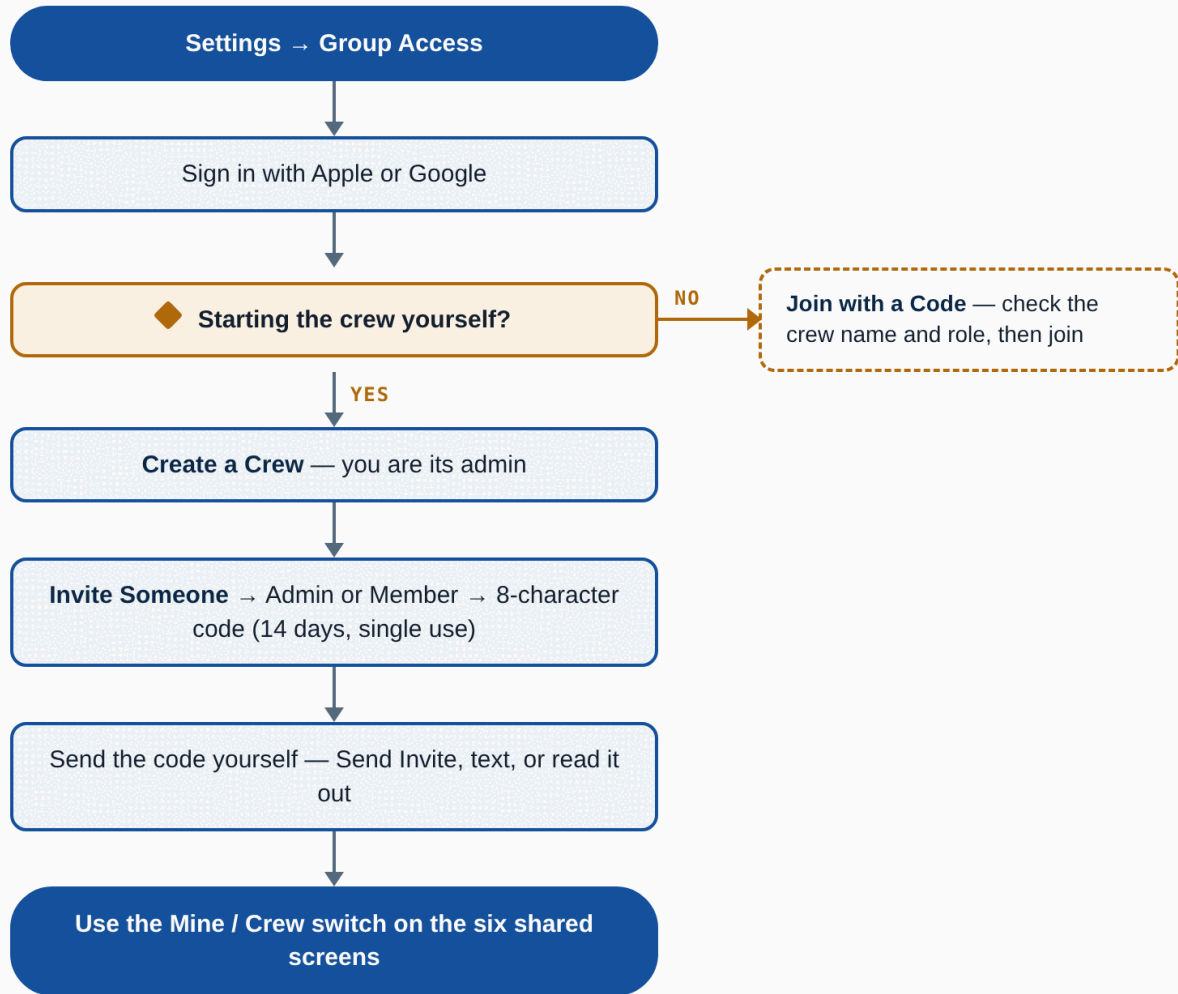
Settings → Group Access. Crews let the hands on one location keep the same figures in front of them. Opt-in, needs an account, and needs Pro. Your crew profile and crew wells are in chapter 44.



Group Access

FLOW CHART

Group Access



Flow chart: Group Access

Starting a crew

1. Open **Settings → Group Access** and sign in with Apple or Google.
2. Tap **Create a Crew** and name it after the rig, location or operator. You are its admin.
3. Tap **Invite Someone**, enter their email to label the invite, and choose **Admin** or **Member**.
4. You get an 8-character code. Send it with **Send Invite** or read it out — the alphabet deliberately excludes O, 0, I, 1, S and 5 so it survives a radio. Invites expire after 14 days and work once.

The app never emails an invite. The email address only labels the invite so you can tell them apart. You deliver the code yourself. Everyone joining needs their own Kyanite Pro subscription — there is no crew or seat billing.

Joining one

Settings → Group Access → Join with a Code. Type the eight characters — lower case, spaces and dashes are all fine — and the app checks it as you finish, showing the crew name and the role you will hold before you commit.

Roles

ROLE	CAN DO
Admin	Full access. Edits everything the crew shares, invites and removes people, changes roles, renames the crew.
Member	Reads and writes Location Volumes and Gain / Loss . Reads inventory, build sheets, kill sheets, cement jobs, notes and crew wells.

A crew must always keep at least one admin, so the last one cannot be demoted or leave until somebody else is promoted.

Mine and crew

Seven screens gain a scope switch once you are on a crew: Location Volumes, Gain / Loss, Chemical Inventory, Notes, LCM Build Sheets, Kill Sheets and Cement Jobs. **Mine** is private to the phone; the other side is the crew's shared set. On several crews the switch becomes a dropdown.

Calculators, charts, the hitch calendar and settings **never sync** — they are the same for everyone.

The bar also tells you when it last synced, how many changes crewmates have made since you last looked, and whether you are read-only on that area.

Sharing your own records is a one-way move. The offer to share records you hold privately **moves** them into the crew's set rather than copying them. Everyone on the crew will see them and they will no longer be private to the phone. There is no un-share.

Records sync when the screen opens, when you edit something, when the app returns to the foreground, and every 20 seconds while the screen is visible. Nothing syncs in the background. Edits made with no signal queue quietly and go up next time you have coverage.

Leaving. **Leave Crew** stops you seeing that crew's shared data; anything on your phone stays put. There is **no delete-crew button** — a crew is only destroyed if its sole admin deletes their account under **Group Access → Delete Account**.

Every crew screen is also on the web console at **app.kyanitepro.com** — sign in with the same account and the crew is there, live, with reports and PDFs for tanks, inventory, gain / loss, kill sheets, cement jobs and notes.

If you are on a crew, the app can tell you when a crewmate changes something. This is the only feature that ever asks for a system permission.

You are only ever asked in one place: Group Access → Notifications → Turn On Crew Alerts. Never at launch, never during onboarding, and never anywhere in the offline calculator side of the app. If you never open Group Access you are never asked.

An alert names the crew and says who changed what area — for example *Dale updated 6 tank readings*. **It never carries a calculated value**, because a figure read off a lock screen is a figure nobody verified. You are never alerted about your own work.

A burst of changes arrives as **one** alert per area rather than one per record, and a repeat for the same area replaces the previous one rather than stacking.

Turning them down

Each crew gets a master switch and six area switches: Location Volumes, Chemical Inventory, Notes, LCM Build Sheets, Kill Sheets and Cement Jobs. Everything is on by default. Tank readings change often through a tour, so that is usually the first to turn off while keeping the sheets on.

If you decline

Nothing breaks. The same updates appear under **Group Access → Crew Activity**, newest first and grouped by day, with a count badge for anything you have not seen. Alerts need a signal; the activity list catches up the moment you have coverage.

iOS only asks for permission once, so if you said no you will need to allow notifications for Kyanite in the iOS Settings app.

How your work is saved

SCREEN	SAVE BEHAVIOUR
Kill sheets, cement jobs, LCM build sheets, notes	Saves every keystroke
Gain / loss sheets, wells, well records, bit runs	Saves as you go
Bit run photos and schematic PDFs	Saved the moment they are added
Inventory day editor	Saves when you leave the screen
Tank day editor	Requires tapping Save Reading
Product, tank, group and LCM product editors	Modal sheets with Cancel / Save

Records are held in the app's private storage on the device. Deleting the app deletes them, and because we never hold a copy of anything you keep private, we cannot recover it. If a record matters, share it out or keep your own copy.

Two exceptions. If you sign in (chapter 43), your **wells** and **saved calculations** are also kept in your Kyanite account, so they come back when you sign in on a new phone and open in the web console. And records you share with a crew are held for the crew. Everything else — tours, mud reports, trip sheets, surveys, tallies, strings, bit runs, rig profiles, private sheets — lives only on this phone.

22 Support and feedback

Settings → **Send a Suggestion** opens a short form: pick a topic, write the message, optionally add your name and rig. The app composes an email and hands it to Mail with everything ready — it never transmits anything itself. Your app and iOS version are appended so a reported problem can be reproduced, and there is a **Copy Message** fallback if no mail account is set up.

Topics available: New calculator · Formula correction · Inventory & reports · LCM build sheet · Hitch calendar · Scientific calculator · Something is broken · Something else.

We particularly want two things: **calculators to add**, and **verified company formulas** for anything marked NEEDS VERIFICATION.

Write directly to admin@kyaniteinc.com or use the support site.

Part II — The well workspace (version 2.0)

Version 2.0 turns Kyanite Pro from a set of calculators and sheets into a **well workspace**. You enter the well once — depth, mud weight, hole sections, casing, string — and every tool works from it: calculators fill from it, records file under it, inventory and tanks belong to it, and reports are built from it without re-typing a number.

Everything in Part II requires **Kyanite Ultra**, runs with no signal and is stored on the phone (wells also sync to your account when you sign in — chapter 43).

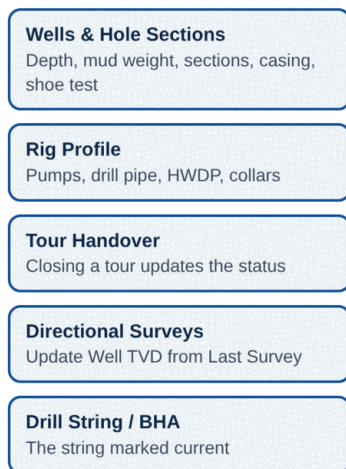
One rule runs through all of it: blank means "not entered". A zero or empty box is never treated as a real value. It shows as —, it never fills a calculator, and no result that depends on it is shown. A figure appears only when the inputs behind it exist.

Quick start: set up your well in five minutes

FLOW CHART

How the current well feeds every tool

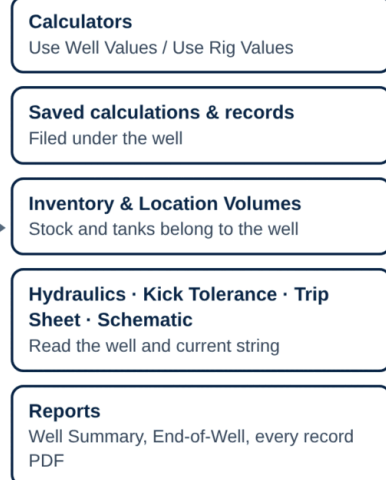
YOU ENTER



Current well

Entered once · blank means
"not entered" · amber after 12
hours

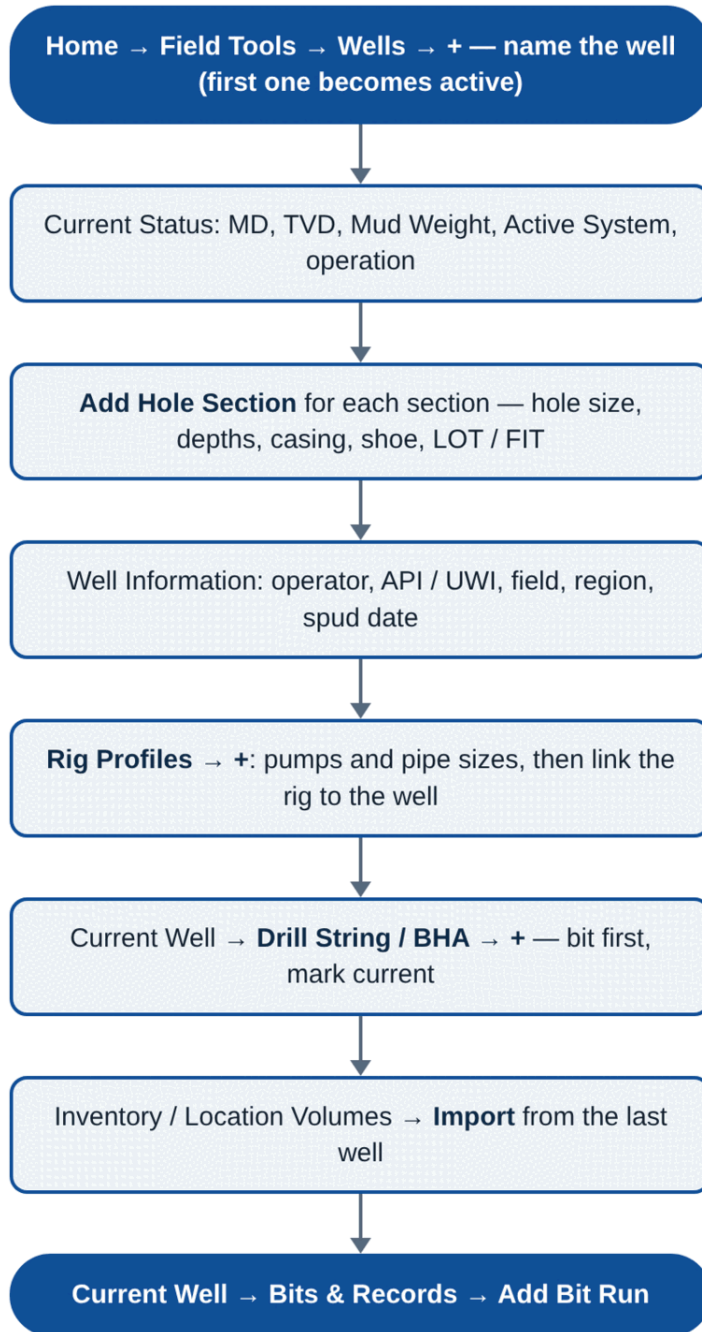
IT FILLS



How the current well feeds every tool

FLOW CHART

Quick start — a new well in five minutes



Flow chart: quick start

The fastest way to get value from 2.0 on a new location. Each step links to its full chapter.

1. **Add the well.** Home → Field Tools → Wells → +. Type the well name (e.g. *Smith 14-2H*). The first well you add becomes the **active well** automatically. → [Chapter 25](#)

2. **Enter the status.** In **Current Status**, type **Current MD**, **Current TVD**, **Mud Weight** and **Active System** (active pits + hole, bbl). Type the current operation, e.g. *Drilling 8-3/4" lateral*.
3. **Add the hole sections.** Tap **Add Hole Section** for each section: hole diameter, top and bottom depths, the casing or liner run in it (pick a **Standard size** to fill OD and ID), shoe MD/TVD, **Run and cemented**, and the **LOT** or **FIT** EMW. Mark the section you are drilling as current.
4. **Add the operator details.** Under **Well Information**: Operator, API / UWI, Field, County / State / Region, spud date.
5. **Set up the rig.** Home → **Field Tools** → **Rig Profiles** → +. Enter the mud pumps (liner, stroke, cylinders, efficiency) and the drill pipe, HWDP and collar sizes. Then link the rig to the well under **Well Information** → **Rig**. → [Chapter 26](#)
6. **Build the string.** Current Well → **Drill String / BHA** → +. Add the bit first, then work up. Mark it current. → [Chapter 29](#)
7. **Bring your stock and tanks.** If you came from another well, open **Chemical Inventory** or **Location Volumes** and tap **Import**. → [Chapter 35](#)
8. **Start the bit record.** Current Well → **Bits & Records** → **Add Bit Run**. → [Chapter 30](#)

From here, any calculator that needs depth, mud weight, hole size, casing or pump output offers **Use Well Values / Use Rig Values** and fills itself in.

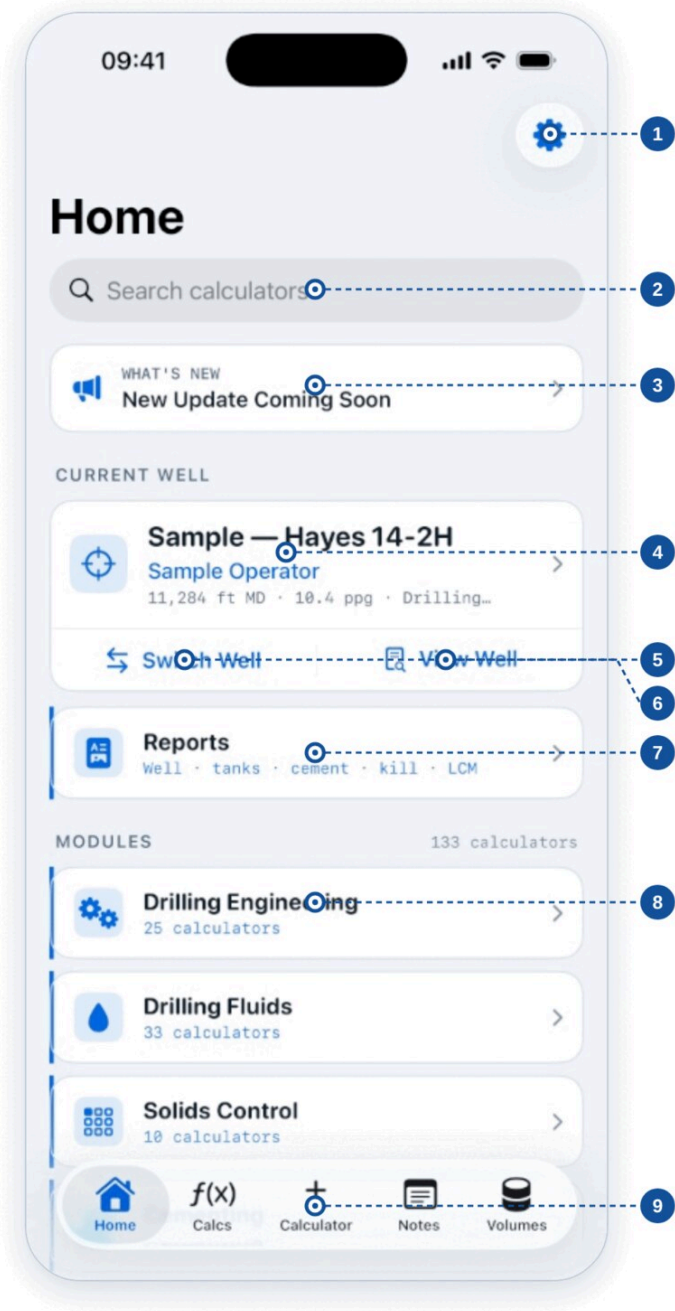
One well is always the **current (active) well**. It is the well that:

- calculators fill from when you tap **Use Well Values**;
- new saved calculations, records and bit runs are filed under;
- Chemical Inventory and Location Volumes show stock and tanks for;
- reports are built for.

The Current Well card on Home

SCREEN LAYOUT

Home (version 2.0)



- 1 Settings**
Units, appearance, Group Access, subscription, User Manual.
- 2 Search**
Searches all 133 calculators by name, unit or field slang.
- 3 What's New**
The latest announcement. Tap to read it.
- 4 Current Well card**
Well name, operator and status line. Tap to open the Current Well hub.
- 5 Switch Well**
Pick another well, or Add or Manage Wells.
- 6 View Well**
Opens the Current Well hub.
- 7 Reports**
Every PDF in one place — well, tanks, cement, kill, LCM.
- 8 Modules**
The six disciplines with their calculator counts. Field Tools follow below.
- 9 Tab bar**
Home · Calcs · Calculator · Notes · Volumes (tubular capacity chart).

Home screen layout (version 2.0)

The first section on Home. With an active well it shows:

LINE	WHAT IT SHOWS
Well name	In large type.

LINE	WHAT IT SHOWS
Operator	Underneath, or <i>Operator not entered</i> .
Status line	Only the parts you have entered, e.g. 9,850 ft MD · 10.4 ppg · Drilling.
Switch Well	Reads Switch Well (N) when you have more than one well. Opens a list of every well as <i>Name · Operator</i> , the current one ticked. Add or Manage Wells at the bottom opens Wells.
View Well	Opens the Current Well hub. Tapping anywhere on the card does the same.

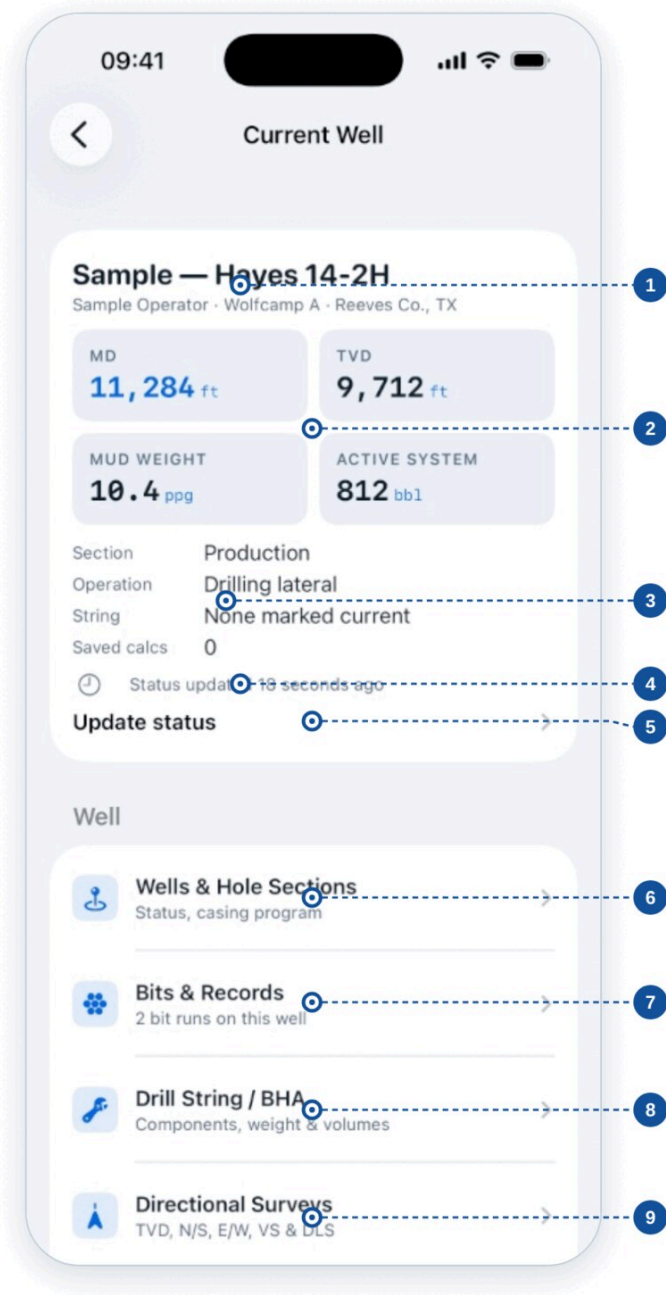
With no well yet, the card reads **Add the well you're on** — tap it to open Wells. Below the card, the **Reports** tile (*Well · tanks · cement · kill · LCM*) opens every report in one place.

Only your own (not crew) wells that are not archived appear in the switcher.

The Current Well hub

Home → Current Well → View Well. Where the well stands, and every well tool in one list.

Current Well hub



- 1 Well & operator**
The active well. Switch appears here when you have more than one.
- 2 Status tiles**
MD, TVD, mud weight and active system. — means not entered.
- 3 Status lines**
Current hole section, operation, current drill string, saved calculations.
- 4 Status age**
Turns amber after 12 hours so an old depth is not used by mistake.
- 5 Update status**
Opens the well to change depth, mud weight or operation.
- 6 Wells & Hole Sections**
Status, hole sections and casing program.
- 7 Bits & Records**
Every bit run on the well — directly under Wells, above the string.
- 8 Drill String / BHA**
Components, weights and volumes. Mark one current.
- 9 More tools**
Surveys, Pipe Tally, Schematic, then Operations, Fluids and Reports groups.

Current Well hub layout

Status block

ITEM	DETAIL
MD, TVD	ft. Shows — when not entered.
Mud weight	ppg.
Active system	bbl.

ITEM	DETAIL
Section	The hole section marked current, or <i>Not set</i> .
Operation	The current operation.
String	The drill string marked current, or <i>None marked current</i> .
Saved calcs	How many saved calculations belong to this well.
Status updated ...	How long ago the depth / mud weight / status was last changed.
Update status	Opens the well so you can change it.
Switch	Appears when you have more than one well.

Status older than 12 hours is flagged. The clock turns amber with an exclamation mark, and calculators that fill from the well show the same warning, so an old depth or mud weight is not used by mistake. Updating any status field resets the clock.

Tool groups

GROUP	ITEMS (WITH THE COUNT OR SUBTITLE EACH SHOWS)
Well	Wells & Hole Sections · Bits & Records — <i>N bit runs on this well</i> · Drill String / BHA · Directional Surveys · Pipe Tally · Well Schematic · Schematic Sheets (PDF) — <i>N on this well</i>
Operations	Tour Handover · Trip Sheet · Advanced Hydraulics · Kick Tolerance (<i>Needs verification</i>) · Kill Sheets · Cement Jobs
Fluids	Daily Mud Report · Mud Trends · Chemical Inventory · Location Volumes · LCM Build Sheets
Reports	Reports · End-of-Well Report · Crew Dashboard

Record types show **N on this well** once any exist.

25 Wells and hole sections

Home → Field Tools → Wells (or Switch Well → Add or Manage Wells).

The well list

- + (top right) creates a well and opens it. If no other well is active, the new one becomes active.
- Each row shows the well name, an **ACTIVE** badge on the current well, the operator, and a status line: MD, mud weight, current section and *N calcs* — or *No status entered yet*.
- **Swipe right** → **Make Active**.
- **Swipe left** → **Archive** (or **Restore**) and **Delete**. Long-press offers the same.
- Archived wells collapse into an **Archived (N)** group at the bottom. Archiving the active well leaves no well active until you choose one.

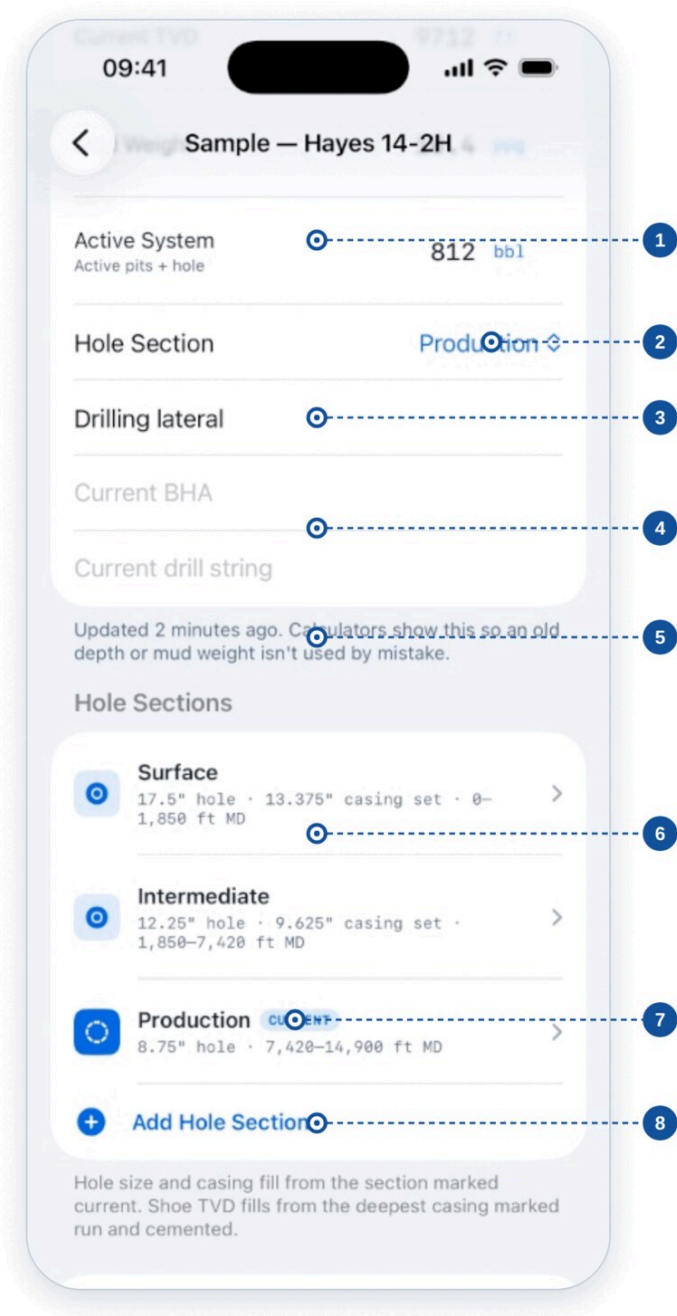
Deleting a well asks *Delete this well?* — the well and its hole sections are removed; saved calculations stay in History with the well's name. **Archive Instead** is offered as the safer choice.

Empty state: **One well, every tool** with an **Add a Well** button.

Inside a well

SCREEN LAYOUT

A well (workspace)



- 1 **Active System**
Active pits + hole, bbl.
- 2 **Hole Section**
Sets which section is current — calculators take hole size and casing from it.
- 3 **Current operation**
Drilling, tripping, circulating...
- 4 **BHA & drill string**
Free-text summary of what is in the hole.
- 5 **Status age**
When the status last changed. Amber after 12 hours.
- 6 **Hole Sections**
Each section with hole size, casing and depth range. Tap to edit.
- 7 **CURRENT badge**
The section being drilled.
- 8 **Add Hole Section**
Starts where the deepest section ends.

Well workspace layout

The title is the well name. Everything saves as you type; **Done** above the keyboard closes it.

1. Name and state

- **Well name** (e.g. *Smith 14-2H*).

- Underneath: **Active well** — calculators fill from this one, or a **Make Active Well** button, or **Archived** — **Restore**.

2. Current Status

FIELD	UNIT	NOTES
Current MD	ft	
Current TVD	ft	Flagged if deeper than MD: <i>TVD is deeper than MD — check the numbers.</i>
Mud Weight	ppg	
Active System	bbl	Active pits + hole.
Hole Section	picker	<i>Not set</i> or one of the well's sections. Sets the current section.
Current operation	text	Drilling, tripping, circulating...
Current BHA	text	
Current drill string	text	

The footer shows *Updated 2 hours ago* (amber when stale). Changing any of these fields re-stamps the status time. Closing a **Tour Handover** also updates this block — see [Tour Handover](#).

3. Hole Sections

Each section row shows its name, a **CURRENT** badge, a  if something looks wrong, and a summary such as **12.25" hole · 9 5/8" set · 0–3,000 ft MD** (*planned* instead of *set* when the pipe is not yet marked run and cemented). Tap **Add Hole Section** for a new one; the first one added becomes current.

Calculators take **hole size and casing from the section marked current**, and **shoe TVD from the deepest casing marked run and cemented**. Planned pipe never counts as a shoe.

4. Bits & Records — opens the well's bit runs (active well only). See [chapter 30](#).

5. Saved Calculations (N) — the 20 most recent results filed to this well. Tap one to open it. Search Calculation History for older ones.

6. Well Information

FIELD	NOTES
Operator	Printed on Home and every report.
API / UWI	
Field	
County / State / Region	
Rig	<i>None</i> or one of your rig profiles. The linked rig's pumps and pipe fill calculators alongside the well's values.

FIELD	NOTES
Spud Date	Toggle on to set the Spudded date.

7. Notes — anything worth keeping about the well.

The hole section editor

Opens as a sheet with **Cancel** and **Save**. Cancel discards every change made in the sheet.

GROUP	FIELD	UNIT / OPTIONS
—	Name	e.g. Surface, Intermediate, Production
—	Hole Diameter	in — the bit size for the section
Depths	Top MD, Bottom MD, Top TVD, Bottom TVD	ft, from your depth reference (RKB). Leave blank if not known.
Casing / Liner	Pipe Run	None · Casing · Liner
	Size → Standard sizes	API presets — fill OD and ID
	OD, ID	in. The ID caption shows the capacity in bbl/ft.
	Liner Top MD	ft — liners only (hanger depth)
	Shoe MD, Shoe TVD	ft
	Run and cemented	Only set pipe counts as the shoe for shoe-TVD inputs
	Shoe Test	LOT or FIT
	LOT EMW / FIT EMW	ppg. Used by kick tolerance and MAASP. Blank = not tested.
Open Hole	notes	Formation, washouts, losses, caliper...

Standard sizes are **nominal API dimensions** — confirm OD, ID and weight against your casing tally.

Check These. The editor flags (but never blocks) numbers that look wrong:

- Top MD is deeper than bottom MD. / Top TVD is deeper than bottom TVD.
- Bottom (or top) TVD is deeper than MD — TVD can't exceed MD.
- Casing ID must be smaller than casing OD.
- Casing OD is not smaller than the hole diameter.
- Shoe MD is below the section's bottom MD. / Shoe TVD is deeper than shoe MD.
- Liner top is not above the liner shoe.
- Shoe test EMW looks unusual — check it is in ppg (outside 7–25 ppg).

Delete Section is at the bottom of an existing section.

Home → Field Tools → Rig Profiles. Enter a rig once and any calculator that needs pump output, pipe or hole sizes can fill them with one tap — **Use Rig Values**. Filled inputs stay editable and are labelled with where they came from.

The rig list

- + adds a rig; the empty state reads **Set up your rig once** with an **Add a Rig** button.
- The active rig carries an **ACTIVE** badge. **Swipe right → Make Active**; swipe left or long-press for **Duplicate** and **Delete**.
- Each row summarises the pumps (*Pump 1, Pump 2*) and pipe, or *Nothing entered yet*.

The rig editor

SCREEN LAYOUT

Rig profile

The screenshot shows the 'Sample Rig' screen in the Kyanite Pro app. The screen is divided into two main sections: 'Rig' and 'Pump 1'. The 'Rig' section contains four input fields: 'Sample Rig', 'Patterson-UTI', '286', and a checked 'Make Active Rig' checkbox. The 'Pump 1' section contains five input fields: 'Pump 1', 'Liner ID' (6 in), 'Stroke Length' (12 in), 'Cylinders' (3), and 'Volumetric Efficiency' (97 %). Below these are two more fields: 'Max Pressure' (5000 psi) and 'Rated for this liner - reference only'. Numbered callouts 1-9 point to the following fields:

- 1 Rig name
As it appears in pickers and reports.
- 2 Contractor
- 3 Rig number
- 4 Make Active Rig
Calculators fill pump and pipe values from the active rig.
- 5 Pump card
One card per mud pump. Add Pump for more.
- 6 Liner & stroke
Liner ID and stroke length, in.
- 7 Cylinders
3 for a triplex.
- 8 Volumetric Efficiency
From your pump's actual displacement, %. Output (bbl/stk) is worked out below.
- 9 Max Pressure
Rated for this liner — reference only.

Rig profile layout

Rig — Rig name, Rig number, Contractor, and **Make Active Rig** (or *Active rig* — *calculators fill from this one*).

Mud pumps — one card per pump; **Add Pump** for more.

FIELD	UNIT	NOTES
Pump name		e.g. Pump 1
Liner ID	in	
Stroke Length	in	
Cylinders	count	3 for a triplex
Volumetric Efficiency	%	From your pump's actual displacement
Output	bbl/stk	Worked out — <i>Enter liner, stroke & efficiency</i> until all are set
Max Pressure	psi	Rated for this liner · reference only
Max Speed	spm	Reference only

The output uses the same equation as the verified **Pump Output** calculator:

$$\text{Output (bbl/stk)} = n \times (\pi \div 4) \times D^2 \times S \div 9702 \times (\text{Eff} \div 100)$$

n = cylinders, D = liner ID (in), S = stroke (in), Eff = volumetric efficiency (%)

Drill String — Drill Pipe Preset (fills nominal OD/ID), **Drill Pipe OD / ID**, **HWDP OD / ID**, **Collar OD / ID** (in).
The drill pipe ID caption shows its capacity in bbl/ft.

Casing & Hole — Casing Preset, Last Casing OD / ID, Hole Size / Bit (in), each with its capacity in bbl/ft.

Notes — anything worth remembering about the rig.

Presets are nominal API dimensions. Worn or non-standard pipe will differ — confirm against your pipe tally.

Rig values vs well values

When a well is linked to a rig (**Well Information → Rig**), calculators offer both: the **well** supplies depth, mud weight, hole size, casing and shoe; the **rig** supplies pump output and pipe sizes. Each filled box says which one it came from, and you can overwrite any of them.

On any calculator whose inputs match something on the well or rig:

1. Tap **Use Well Values** (or **Use Rig Values**) above the inputs.
2. Matching boxes fill — depth, TVD, mud weight, hole size, casing ID, shoe depth, pump output, pipe OD/ID — each labelled with its source.
3. Anything the well doesn't have stays blank; nothing is guessed.
4. If the well's status is older than 12 hours, a warning says so before you rely on it.
5. Edit any filled value freely; the well itself is not changed.

28 Calculation history

Saving a result

After any calculation, tap **Save**. The **Save Calculation** sheet shows the inputs and result read-only, so you can see exactly what is being kept, plus:

FIELD	NOTES
Well / Job	Defaults to the active well. Optional — attaches the result so it is found and reported with that job.
Notes	<i>What was this for?</i>
Favorite	Stars it in History and marks it significant in the End-of-Well report.

If you reopened a saved calculation and changed it, you choose **Update Saved** or **Save as New Copy**.

Finding results

Home → Field Tools → Calculation History. Newest first.

- **Search** — *Calculator, well, notes*: matches the calculator name, well, notes and result.
- **Favorites** filter, **Well** menu (*All wells* or one well), **Discipline** menu (*All disciplines* or one module). **Clear Filters** resets them.
- **Swipe right** → **Favorite / Unfavorite**. **Swipe left** → **Delete**.
- **Long-press** → Duplicate, Share Result, Favorite, Delete.

A saved calculation

SECTION	CONTENTS
Result	The headline and secondary results as saved.
Inputs Used	Every input with its unit. Blank inputs read <i>Left blank — calculator default used</i> .
Formula (as saved)	The equation in force when it was saved.
Well & Notes	Editable.
Reopen & Edit Inputs	Opens the calculator with these inputs to rework.
Toolbar	Share, Duplicate, Favorite, Delete .

If the calculator has been revised since, a banner says *This calculator has been revised since this was saved. Reopen it to recalculate with the current equation*. If it has been retired, the saved values are kept as a record.

29 Well records

Six record types live under the current well. Open them from the **Current Well** hub.

How every record list works

- + starts a new record, filed under the active well.
- **Show** switches between **Active well** and **All wells**.
- Swipe or long-press for **Duplicate** and **Delete** (*This can't be undone*).
- Each record has a **share** button that creates its PDF (and CSV where it applies).

Pipe Tally

Joint-by-joint lengths. Tally pipe joint by joint with a running total.

1. Choose **Mode: Joint mode** (one length per joint) or **Stand mode** (one length per stand).
2. Type the length and tap **Add** — the box clears for the next joint. Add a **Note** (e.g. *pup, damaged box*) if needed.
3. **Undo** reverses the last change.

SHOWN	DETAIL
Joints	Count.
Total length	ft.
Average joint	ft.
Tally (latest first)	Each joint with its length and cumulative. Tap to Edit Entry or Delete Entry .

Import reads a CSV of joint lengths from Files. If nothing usable is found: *No joint lengths found in that file*. Tally totals can fill the drill string — see **Use Pipe Tally Lengths** below.

Drill String / BHA

Components, weight & volumes. Build the string **from the bit up**. The list shows it **top of hole first**.

1. Tap **Add Component** — add the bit first.
2. For each component: **Type, Dimensions** (OD, ID, tool joint OD), **Length** or joints × **Length per joint**, and weight per foot.
3. For the bit: **Bit size, Nozzles** in 32nds (e.g. *16, 16, 16*) → **TFA** is worked out.
4. Optional **From Spec Sheet** values (capacity, displacement, adjusted weight, pressure drop at your flow rate) override the calculation — use them for tool joints or tool internals.
5. **Drill Pipe Presets** fill nominal API body dimensions.
6. **Use Pipe Tally Lengths** sets the joint count and length of matching drill pipe, HWDP and collar lines from a tally's totals.

Totals

RESULT	HOW
String length	Sum of components.
Air weight	Weight/ft × length.
Buoyed weight	Needs mud weight on the well.
Internal capacity	$ID^2 \div 1029.4$ per line, or the entered capacity.
Steel displacement	$(OD^2 - ID^2) \div 1029.4$, or the entered figure.
Closed-end displacement	Steel + internal.

Volumes & Strokes — from the well's hole sections and this string: **Annular volume**, **Bottoms-up volume**, **Total circulation** (string + annulus, excludes surface volume), **Strokes to bit** and **Bottoms-up strokes** (need a rig with a pump linked to the well). With no current MD on the well, only fixed lengths are used.

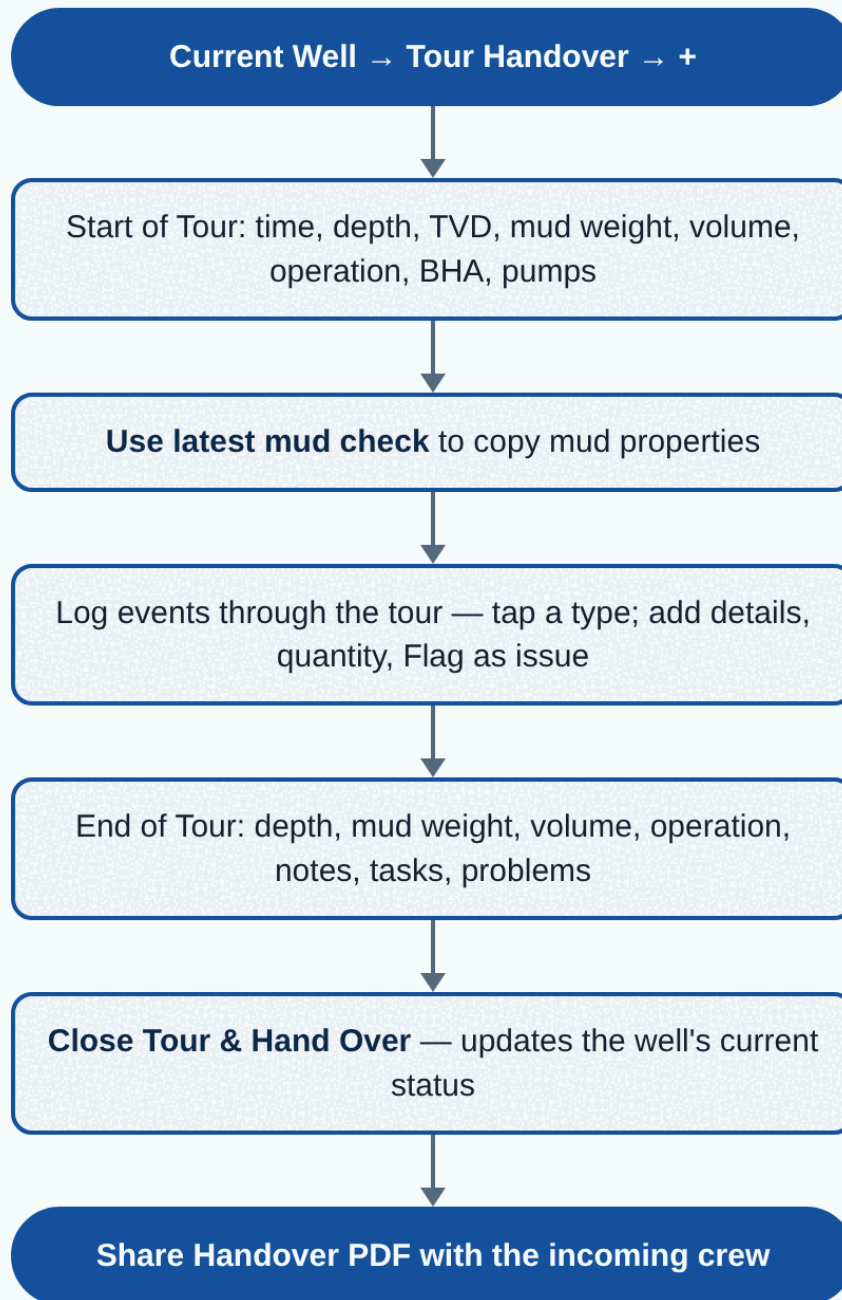
Mark one string current. The current string feeds calculators (pipe and collar sizes), hydraulics, kick tolerance, the trip sheet and the well schematic.

Tour Handover

Events & shift handover.

FLOW CHART

Tour handover



Flow chart: tour handover

Start of Tour — **Tour start** time, **Depth**, **TVD**, **Mud weight**, **Active volume**, **Operation**, **BHA**, **Pumps** (liner, SPM, output) and **Mud properties** (Use latest mud check copies them in).

Events — tap an event type to log it with the time now. Each event can carry **Details**, a **Quantity**, and **Flag as issue**. Tap an event to edit or **Delete Event**.

End of Tour — end depth, mud weight, volume and operation; **Notes for incoming crew**, **Outstanding tasks**, **Problems / issues**.

Close Tour & Hand Over stamps the handover time and **updates the well's current status** with the end-of-tour depth, mud weight, volume and operation you entered. **Reopen Tour** undoes the close. **Share Handover PDF** sends it to the incoming crew.

Daily Mud Report

Checks, treatments & stock.

SECTION	CONTENTS
Report	Report date, Depth, Fluid system (e.g. 9.6 ppg WBM, 80/20 OBM).
Properties reported	Choose which properties apply to this fluid system. New reports on the well carry the same set forward.
Mud Check	Add Mud Check — Time , Sample point (flowline, pit, suction or other) and the properties chosen above. Worked Out: PV and YP from the 600/300 readings (API RP 13B).
Treatments & Chemical Usage	Add Treatment — Product (From inventory or Not in inventory), Quantity , Unit (sacks, gal, bbl), Cost per unit , note (e.g. added to suction pit), Deduct from inventory .
Volumes	Active volume , Reserve volume , Dilution , Surface losses , Losses to formation .
Operational Notes	Free text.

Inventory is only touched when you say so. **Deduct from inventory** books the quantity as *Used* in Chemical Inventory on the report date. Editing the treatment later posts only the difference, so nothing is ever counted twice. Blank boxes are left blank on the report, never zero.

Trip Sheet

Calculated vs actual fill.

Setup

FIELD	NOTES
Direction	Trip in or out.
Trip start, Start depth, Stand length	Stand length is used to suggest the next depth.
Pipe capacity, Steel displacement	bbl/ft, or tap Use current drill string .
Closed end (wet / float)	Uses closed-end displacement.
Highlight difference over	bbl. Leave blank for no highlighting.

Entries — **Add Entry: Stands, Depth** (suggested), **Trip tank bbl** or **Actual bbl**, **Note**. Each entry shows **Calculated**, **Actual**, **Difference**, **Running diff** and **Cumulative bbl**. The **Calculated vs Actual** chart plots both series.

Highlighted entries passed the threshold you set. The sheet shows the numbers only — interpreting well conditions is the crew's call.

Directional Surveys

TVD, N/S, E/W, VS & DLS by minimum curvature.

Setup — **Azimuth reference** (True, Grid or Magnetic — keep one throughout), **VS azimuth**, and the tie-in: **Tie-in TVD**, **Tie-in N/S**, **Tie-in E/W** (blank = surface).

Stations — **Add Station**: MD, **Inclination**, **Azimuth**, note. Each row works out **TVD**, **N/S**, **E/W**, **VS** and **DLS** (°/100 ft).

View — **Table**, **Plan View** or **Vertical Section**.

Import reads a CSV of MD / Inc / Azi rows. **Update Well TVD from Last Survey** writes the last station's TVD to the well's current status.

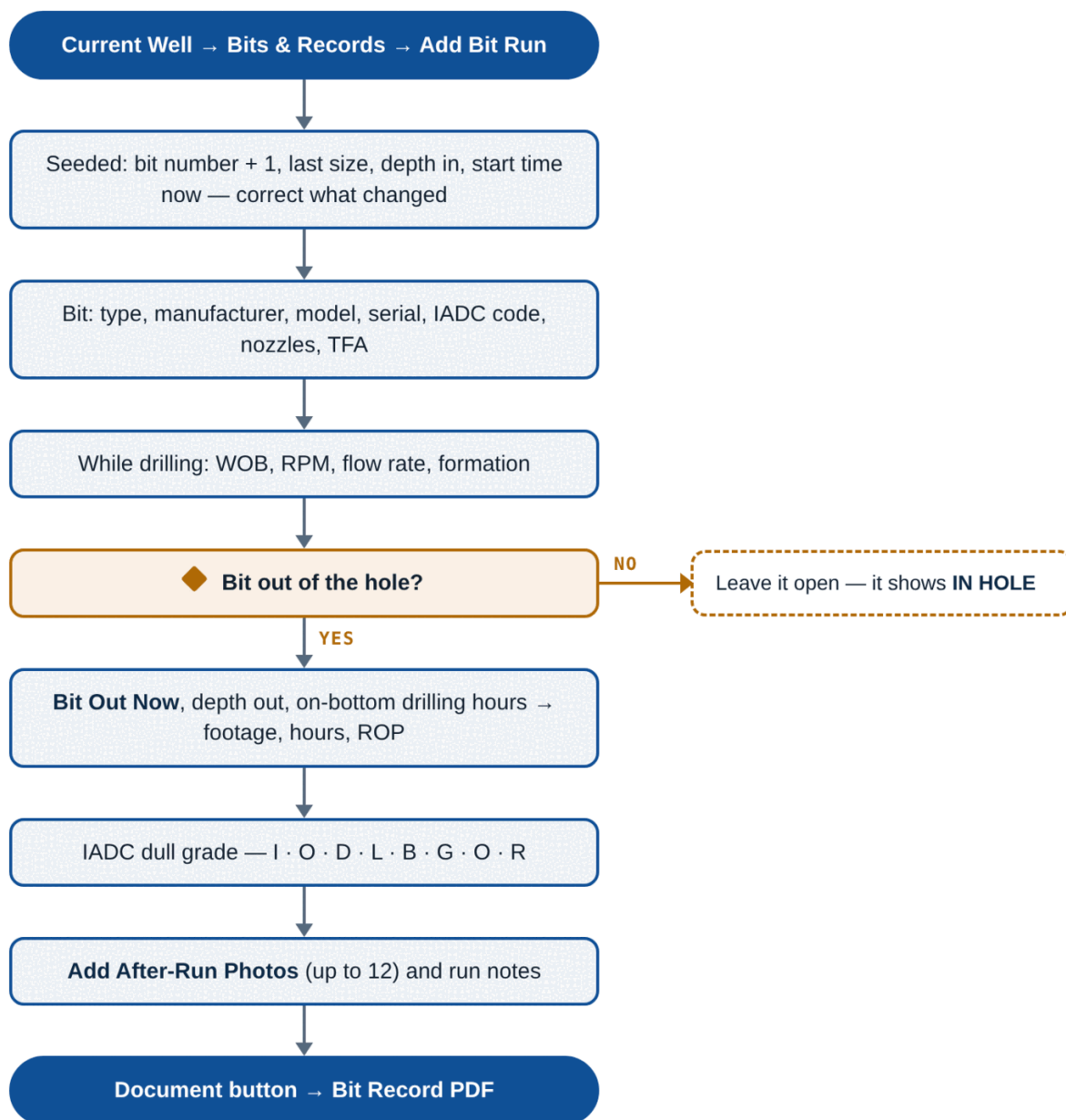
Tie-in N/S and E/W accept north and east (positive) values only for now. For a south or west tie-in, start from the surface station instead.

30 Bits & Records

Current Well → Bits & Records — the second item in the **Well** group, directly under Wells & Hole Sections and above Drill String / BHA — or the **Bits & Records** row inside a well. One record per bit run, kept with the well.

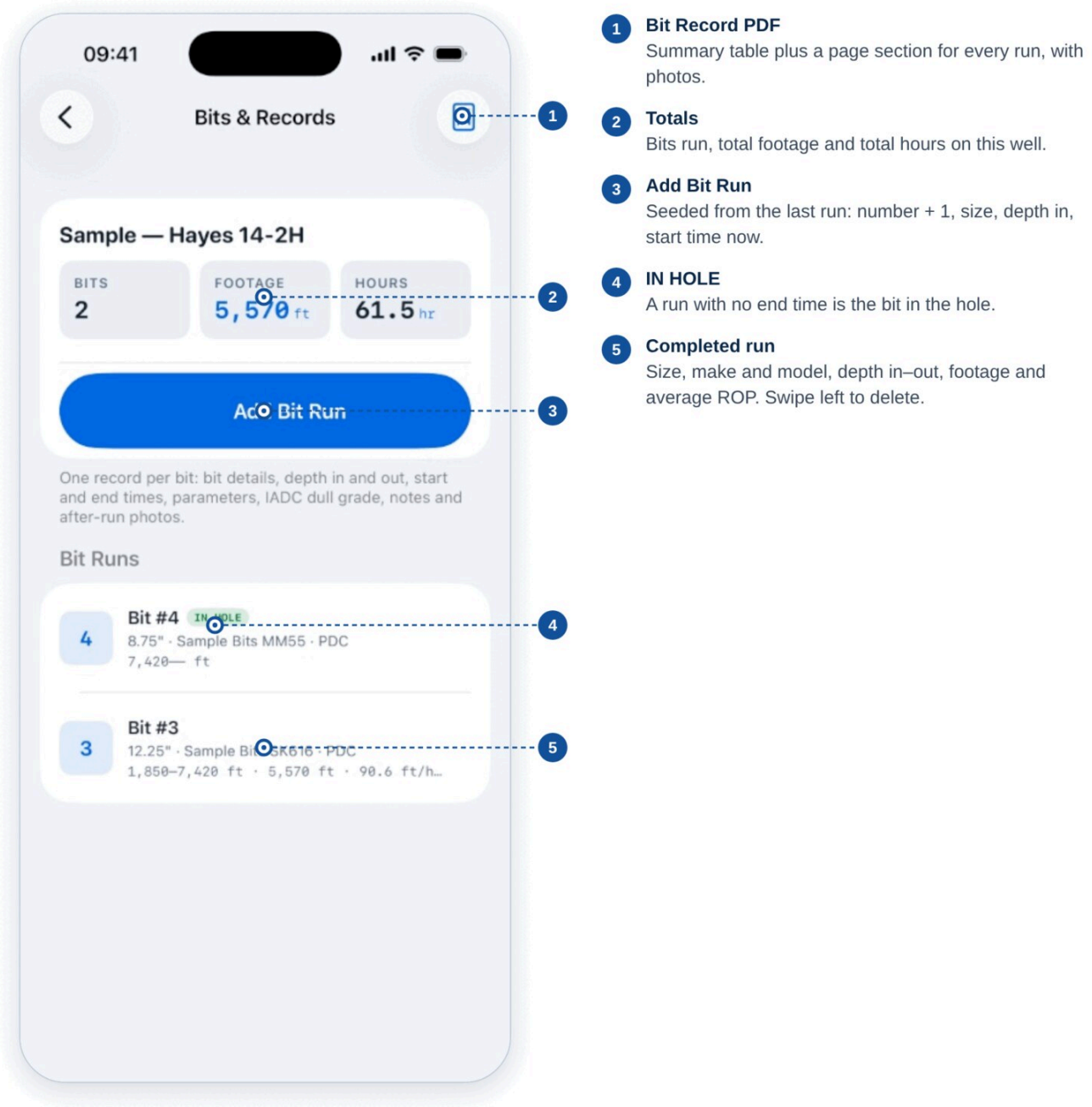
FLOW CHART

Bits & Records



Flow chart: Bits & Records

Bits & Records



Bits & Records list layout

The bit list

- Summary at the top: **Bits**, total **Footage**, total **Hours**.
- Each run shows the bit number and size, make and model, depth in-out, footage, ROP, dull grade and photo count. A run still in the hole carries an **IN HOLE** badge.
- **Add Bit Run** at the bottom. **Swipe left → Delete** (*Its notes and photos are deleted with it*).

- The **document** button (top right) creates the **Bit Record PDF**.

Starting a bit run

Tap **Add Bit Run**. The new run is seeded from the last one so you only correct what changed:

FIELD	SEEDED WITH
Bit number	Last bit's number + 1
Size	Last bit's size
Depth in	Last bit's depth out, or the well's current MD
Start time	Now

The bit run editor

Everything saves as you go.

Bit run editor

09:41

<

Bit #3

FOOTAGE

5,570 ft

HOURS

61.5 hr

AVG ROP

90.6 ft/hr

Footage = depth out – depth in, ROP = footage ÷ on-bottom drilling hours.

Bit

Bit number

Size

12.25 in

Manufacturer

Sample Bits

Model

SK616

Type

Serial number

A12345

IADC code

Nozzles

6 x 14

- 1 Results
Footage, hours and average ROP — shown once their inputs exist.
- 2 How it was worked
States which hours were used: on-bottom drilling hours or elapsed time.
- 3 Bit number
- 4 Size
in.
- 5 Make & model
Manufacturer and model.
- 6 Type
PDC · Roller cone · Hybrid · Impregnated · Hole opener · Other.
- 7 Serial & IADC code
Further down: nozzles, TFA, Run, Parameters, IADC Dull Grade, notes and photos.
- 8 Nozzles
e.g. 6 × 14.

Bit run editor layout

Results (top) — Footage, Hours and Avg ROP, shown once their inputs exist.

SECTION	FIELD	UNIT / OPTIONS
Bit	Bit number	
	Size	in

SECTION	FIELD	UNIT / OPTIONS
	Type	PDC · Roller cone · Hybrid · Impregnated · Hole opener · Other
	Manufacturer, Model, Serial number	
	IADC code	e.g. 117, M323
	Nozzles	e.g. 6x14
	TFA	in ²
Run	Depth in, Depth out	ft
	Start, End	date and time — Set to now , edit, or clear
	Drilling hours	On-bottom time, optional
	Formation	
Parameters	WOB min–max	klb
	RPM min–max	rpm
	Flow rate	gpm
IADC Dull Grade	I · O · D · L · B · G · O · R	see below
Run Notes	free text	How it drilled, why it was pulled, what to change next run...
After-Run Photos	up to 12 at a time	

Bit Out Now stamps the end time when the bit comes out.

Worked figures

Footage = Depth out – Depth in

Hours = Drilling hours (on-bottom) if entered, otherwise End – Start (elapsed)

Avg ROP = Footage ÷ Hours (ft/hr)

The footer says which hours were used. Elapsed time includes connections, surveys and anything else that happened during the run — **enter on-bottom drilling hours for a true ROP**.

Flagged:

- *Depth out must be deeper than depth in.*
- *End time is before the start time.*

The IADC dull grade

Eight boxes, entered as the bit came out and shown as one line, e.g. 1-2-WT-A-X-I-N0-TD . The boxes accept free text so you can use your company's codes; the standard IADC meanings are below for reference.

BOX	MEANING	COMMON ENTRIES
I — Inner	Cutting structure wear, inner two-thirds	0 (no wear) – 8 (fully worn)
O — Outer	Cutting structure wear, outer third	0 – 8
D — Dull characteristic	Main dull feature	WT worn teeth/cutters · BT broken · CT chipped · LT lost teeth/cutters · RO ring out · BU balled up · ER erosion · PN plugged nozzle · LN lost nozzle · JD junk damage · NO no dull
L — Location	Where on the bit	N nose · T taper · S shoulder · G gauge · C cone · M middle · H heel · A all
B — Bearings / seals	Roller cone only	E effective · F failed · X for fixed cutter
G — Gauge	In gauge or under	I in gauge, or 1/16ths under (e.g. 1/16)
O — Other	Secondary dull feature	Same codes as D
R — Reason pulled	Why it came out	TD total depth · PR penetration rate · BHA change · HP hole problems · DMF motor failure · DTF tool failure · TQ torque · PP pump pressure · FM formation change · CP core point · LOG logging · RIG rig repair · HR hours

After-run photos

1. Take photos of the dull bit — cutters, gauge, nozzles — with the **Camera** app.
2. In the run, tap **Add After-Run Photos** (or **Add More Photos**) and pick up to 12.
3. They are resized (long edge 2000 px) and stored on the phone with the run.

Tap a photo to view it full screen: pinch or double-tap to zoom, share it, or **Delete Photo**.

The Bit Record PDF

Summary (well, operator, bits, footage, hours), a bit summary table (bit, size, make/model, in, out, footage, hours, ROP, dull), then a page section per run with every field, the notes and the after-run photos.

31 Well schematic and schematic sheets

The drawn schematic

Current Well → Well Schematic. Drawn from the well's hole sections and current drill string:

- open hole at each section's diameter;
- casing and liners (solid when **run and cemented**, **dashed when planned**), with shoe labels and the **LOT/FIT** EMW;
- the current string and bit, and the current MD.

Depth is to scale; widths are scaled by diameter. The **Casing Program** table lists each section. **Share well summary** creates the Well Summary PDF with the schematic. It redraws whenever the well changes.

Operator schematic sheets (PDF)

Current Well → Schematic Sheets (PDF), or **Operator Schematic Sheets (PDF)** on the Well Schematic screen. Keep the operator's or company man's wellbore schematic with the well.

1. Tap **Upload Schematic PDF** (or +).
2. Pick one or more PDFs from Files, iCloud Drive, or anything saved from Mail or Teams.
3. Each sheet is filed under the **current well** with a first-page thumbnail, page count, file size and upload date.

ACTION	HOW
Open	Tap the sheet — full screen, pinch to zoom, share from the top right.
Rename	Swipe left → Rename , or long-press.
Share	Long-press → Share PDF .
Remove	Swipe left → Remove . Removes the app's copy only; the original file is untouched.

Files that are not PDFs, or password-protected PDFs, are refused by name. If a file won't open, save it to Files first and upload it from there. Sheets open with no signal.

32 Advanced Hydraulics

NEEDS VERIFICATION. Compare against your service company's hydraulics software before using operationally.

Current Well → Advanced Hydraulics. Pressure losses, ECD, HSI and annular velocity by the **API RP 13D power law** method, for the well as it stands.

From the Well (read-only, with where each came from): **Bit depth & mud weight, MD / TVD, Hole sections, Current drill string** and **Bit nozzles**.

Inputs

FIELD	NOTES
Flow rate	gpm.
Rheology (viscometer)	600 and 300 rpm (600 must be higher than 300), plus lower readings — optional, used for the annulus. Use latest mud check fills them.
Surface equipment loss	psi — from the rig's surface-equipment case, or measured.

Results

CARD	CONTENTS
Drill String Losses	Each component: ID, interval, velocity, regime, loss psi. Pipe n / K.
Annular Velocity & Losses	Each interval: AV ft/min, critical ft/min, regime, loss psi. Annulus n / K.
Bit	Nozzle velocity, Bit HHP, HSI, pressure drop.
ECD	ECD at shoe and at bit.
Total system	Total standpipe pressure and system hydraulic horsepower.
Chart	ECD vs Depth and Annular Loss vs Depth .

Data gaps are spelled out instead of producing a number: *Enter current MD and mud weight on the well.* · *Add hole sections and casing on the well.* · *Mark a drill string current on this well.* · *Enter nozzles on the bit in the drill string.* · *Enter MD/TVD on the well or add surveys (needed for ECD).*

Equations and **Assumptions & Limitations** are listed on the screen. **Share hydraulics report** creates the PDF.

33 Kick Tolerance

SAFETY-CRITICAL · NEEDS VERIFICATION. Verify against your company's well control software and program before relying on this result.

Current Well → Kick Tolerance. Volumetric single-bubble kick tolerance (IADC / IWCF method).

From the Well — Bit MD / TVD, Mud weight, Last casing shoe (Shoe MD / TVD), Shoe test (LOT / FIT) EMW and the **Current drill string** (for annular volumes around the BHA).

Design Inputs

FIELD	NOTES
Kick intensity	Your design basis.
Influx gradient	psi/ft — often 0.1 psi/ft for gas. No gradient is assumed ; enter the one in your well program.
Pore pressure	Expected at the next section TD, as EMW. Optional.
Temperatures	Bottom-hole and shoe temperature — optional, both needed to apply a correction.

Result — Kick tolerance (bbl), **V1 — at the bit, V2 at shoe, V2 at bottom, Max influx height, MAASP**, and **Governed by** (which limit controls).

Data Gaps tell you exactly what is missing, e.g. *Enter the LOT/FIT EMW on the casing's hole section.* or *Mark the casing run-and-cemented with shoe MD and TVD in the hole section.* **Share kick tolerance report** creates the PDF.

Current Well → Mud Trends. Pick a **Property** and see it plotted against **Depth (ft MD)** across every Daily Mud Report on the well, with the **Readings** listed underneath. Useful for spotting a creeping solids content, a rising YP or a chloride change across a section.

Moving to a new well

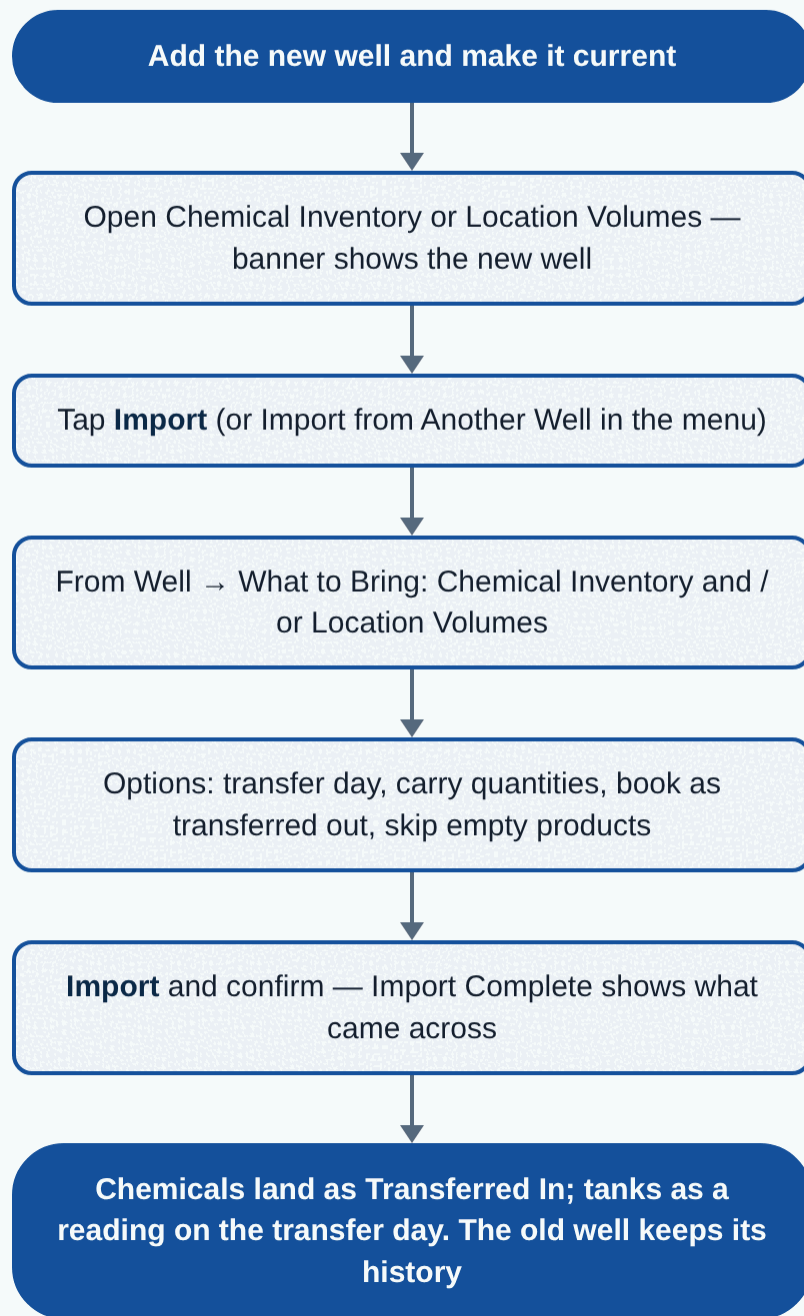
Chemical inventory and location volumes are kept **per well**. The banner at the top of both screens shows which well you are looking at, with an **Import** button.

Upgrading from 1.x? Inventory and tanks you entered before 2.0 are given to your current well the first time you open each screen, so nothing goes missing. Crew inventory and crew tanks are not split by well — the crew is their scope.

Importing from the last well

FLOW CHART

Moving to a new well



Flow chart: moving to a new well

1. Add the new well (**Home → Switch Well → Add or Manage Wells**) and make it current.
2. Open **Chemical Inventory** or **Location Volumes**. The banner shows the new well.
3. Tap **Import** on the banner (or **Import from Another Well** in the menu).

4. The **Import from Another Well** sheet opens:

SECTION	FIELD	EFFECT
Importing into		The current well.
From Well	picker	The well you came from.
What to Bring	Chemical Inventory (N)	Every product with its on-hand quantity.
	Location Volumes (N)	Every tank (name, type, capacity) with its last gauged volume and mud weight, plus your tank groups.
Options	Transfer day	Quantities are taken as of this day and land on it.
	Carry quantities & volumes	On: stock and volumes come across. Off: names and setup only — chemicals arrive with zero on hand, tanks arrive empty.
	Book as transferred out of old well	Enters the same quantity as <i>Transferred Out</i> on the old well, so both ledgers balance.
	Skip products with nothing on hand	Leaves empty products behind.

5. Tap **Import** and confirm. **Import Complete** summarises what came across.

How it lands

- Chemicals arrive as **Transferred In** on the transfer day, noted *Transferred in from previous well*, so the ledger shows where the stock came from.
- A product already on the new well with the same name and unit is **not duplicated** — the quantity is added to it.
- Tanks arrive with a gauge reading on the transfer day, which carries forward like any other reading. A tank with the same name is skipped.
- The old well keeps its full history.

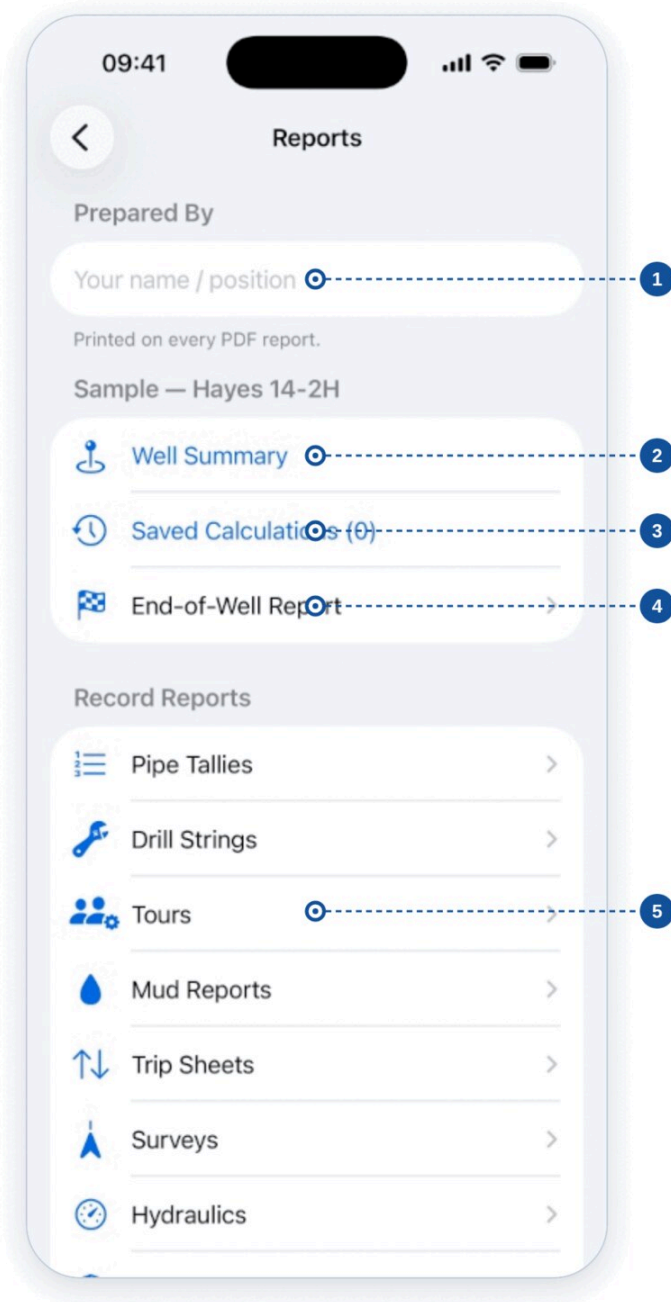
36 Reports and PDFs

Home → Reports (or Current Well → Reports). Every PDF in one place.

Prepared By — *Your name / position*. Printed on every PDF report.

SCREEN LAYOUT

Reports

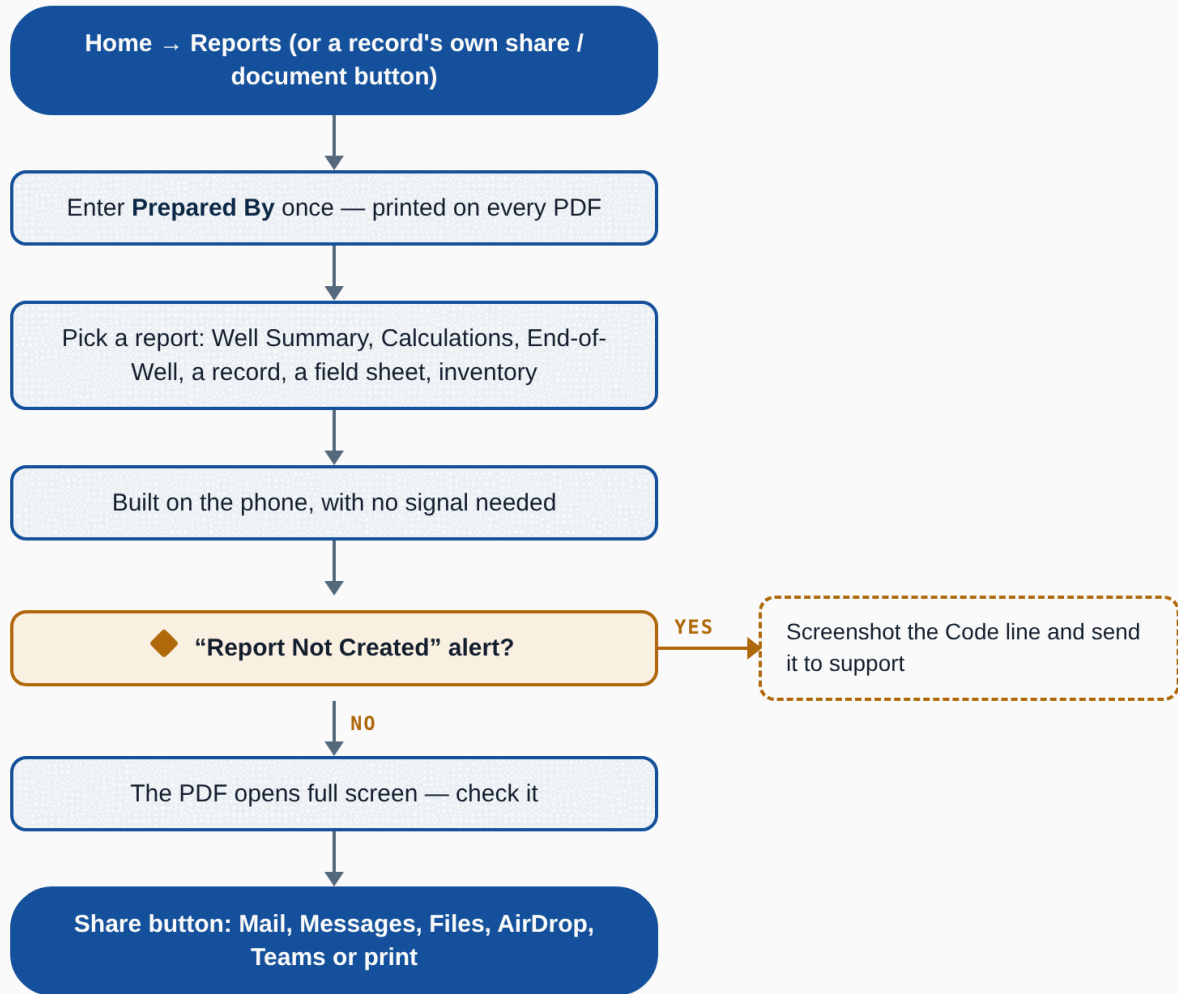


- 1 **Prepared By**
Your name / position — printed on every PDF.
- 2 **Well Summary**
Status, hole sections, casing program and schematic.
- 3 **Saved Calculations**
Calculation report for the well.
- 4 **End-of-Well Report**
Built from every record on the well.
- 5 **Record Reports**
Tallies, strings, tours, mud reports, trip sheets, surveys, hydraulics...

Reports screen layout

FLOW CHART

Reports and PDFs



Flow chart: reports and PDFs

SECTION	REPORTS
Well	Well Summary (status, hole sections, casing program, schematic) · Calculation Report (saved calculations — favorites listed as significant, otherwise all) · End-of-Well Report
Record Reports	Tallies, strings, tours, mud reports, trip sheets, surveys, hydraulics, kick tolerance — open a record and use its share button for its PDF (and CSV where it applies).
Field Sheet Reports	Tank Volumes — Today , and pick-a-sheet menus for Cement Jobs , Kill Sheets and LCM Builds .
Chemical Inventory	Daily and period reports.

Every field sheet also has a report button at the top of its own screen: cement job, kill sheet, LCM build, tank volumes (for the day on screen), gain / loss sheet and bit record.

The End-of-Well Report

Built from records already on the well — nothing is re-entered:

- **Status** — spud, final MD / TVD, final mud weight, operator, rig.
- **Hole sections** and the casing program.
- **String** — components of the current string, bit up.
- **Surveys** — stations, last MD, max inclination, max DLS.
- **Mud reports** — count, dilution, surface losses, losses to formation.
- **Tours** — tours logged, gains and losses logged.
- **Trip sheets, Saved calculations** and chemical **On hand**.
- **Lessons Learned** — *What would you do differently on the next well?* — typed on the Reports screen.

Mud-report and tour volumes are separate records and may overlap; they are listed side by side, not added together.

Viewing and sending

Every PDF is built on the phone with no signal, opens full screen first so you see exactly what will be sent, and is shared from the button at the top right — Mail, Messages, Files, AirDrop, Teams or print.

If a PDF ever can't be built, the alert shows a short **Code** line. Send a screenshot of it to support so we can see exactly what failed on that phone.

Current Well → Crew Dashboard. One screen that tells you what is shared and what isn't.

SECTION	CONTENTS
Status	<i>Not signed in — everything stays on this phone and works offline, Signed in, not in a crew, or the crew, your role (You are an admin / Member) and sync state (Syncing..., Waiting for a connection — changes are kept and sent when signal returns).</i>
Synced With the Crew	Location Volumes, Gain / Loss, Chemical Inventory, Notes, LCM Build Sheets, Kill Sheets, Cement Jobs, plus Crew wells and My crew profile .
On This Phone · Hand Over by PDF	Personal wells & hole sections, rig profiles, tours, mud reports, BHA, tallies, surveys — private from the crew. Share them as PDF reports, or share a well with the crew as a crew well.
Recent Activity	The latest crew changes; All activity opens the full list.

Links: **Set up crew sharing** / **Create or join a crew**, and **Crew settings & roster**.

Offline edits are queued and sent when signal returns. A record edited on this phone is never overwritten by an incoming change until it has been sent.

Home → Field Tools → Translations. English ⇌ Spanish for the location — northern Mexican field wording.

Type to Translate

1. The direction button reads **ENGLISH → ESPAÑOL**; tap to swap.
2. Type anything (*Type in English... / Escribe en español...*) and tap **Translate**.
3. Under the result: **Speak** reads it aloud (**Stop** to cut it off), **Show** puts it full screen to hold up to a driver, **Copy** puts it on the clipboard.

It uses Apple's on-device translation. **The first time needs a signal** to download the Spanish language pack; after that it works offline. If it isn't available: *Translation isn't available right now. Connect once to download the Spanish language pack, then it works offline.*

Machine translation — double-check numbers, units and safety instructions.

Phrasebook

Ready-made field phrases, searchable in either language (*English or español*) and filtered by category. Tap a phrase to hear it; tap the expand icon to show it big.

Build a dispatch order

Action · barrels · fluid · tank → *Spanish*. Builds a full instruction in Spanish from choices:

CHOICE	EXAMPLE
Mode	Order or Question
Action	Send, transfer, haul...
Barrels	120
Fluid	OBM, brine, fresh water...
From / Into	Tank or location (they can't be the same place)

Say it, **Show** and **Copy** work as above.

39 Announcements

Update notes and offers from Kyanite appear as a banner at the top of Home on every install — no account needed.

- Tap the banner to read the full announcement. A photo icon on the banner means it **includes a photo**, shown at the top when opened (*Photo unavailable offline* with no signal).
- **Got It** dismisses it on this phone.

For the publisher account only — Settings → Publisher → Announcements:

FIELD	NOTES
Type	What's New or Special Offer.
Headline, Message	
Photo (Optional)	Add Photo from the library, Replace Photo , Remove Photo . Resized and compressed before sending; the upload size is shown.
Also Send as Push	A one-shot alert to every device that allowed notifications.
Publish / Publish & Push	Goes live on every install. It cannot be unsent — proofread first.

Last Broadcast shows what is live.

Part III — Kyanite Ultra, your account and the web

Part III covers what was added after version 2.0 first shipped: the Kyanite Ultra plan, the two AI engineers, the Live Rig Dashboard, signing in to sync with the Kyanite web console, and the crew wells and profiles that the whole crew works from.

Kyanite Ultra is the top plan. It includes everything in Kyanite Pro, plus:

GROUP	FEATURES
AI Engineering Assistants	DrillIQ — AI drilling engineer, on call. MudIQ — AI mud engineer, on call.
Your Well, in One Place	Live Rig Dashboard, Well Workspace, Use Well & Rig Values, Rig Profiles, Move to a New Well
Every Record, Filed	Well Records, Bits & Records, Well Schematics, Calculation History
Engineering	Advanced Hydraulics, Kick Tolerance, Mud Trends
Reports, Crew & Support	Reports & End of Well, Crew Dashboard, Translations, Priority Tech Support

Discover Kyanite Ultra

Settings → Discover Kyanite Ultra (or the Ultra card on Home, or any locked Ultra tile) opens a screen that lists every Ultra feature, grouped as above. Tap a feature for a full explanation. Locked Ultra screens stay visible with a lock and the same explanation, so you always know what is there.

Plans and prices

Ultra is offered monthly and yearly. The paywall shows the price in your local currency, the saving on the yearly plan (**SAVE x%**) and any free trial you are eligible for. Payment is charged to your Apple Account; the subscription renews automatically unless cancelled at least 24 hours before the end of the period.

Ultra replaces your Pro plan. You never pay for both. Apple starts Ultra straight away and refunds the unused part of your Pro subscription pro rata. Everything in Pro stays unlocked.

- **Restore Purchases** brings back Kyanite Ultra or Pro on this phone if you bought it with this Apple Account.
- **Manage Subscription** opens Apple's subscription settings to change or cancel.
- Subscribing needs a connection. Once you're subscribed, Ultra works offline.

Your data is safe if a plan ends. Every well, record and report stays on the phone. Ultra features lock until it is renewed, and then open exactly as you left them.

Ultra on the web

If you are signed in (chapter 43), your Ultra plan also unlocks DrillIQ, MudIQ and Live Rig in the web console. There is no checkout on the web — subscribe and buy question packs here on the phone.

41 DrillIQ and MudIQ

Two AI engineers, one for drilling and one for fluids. Both are on **Home**, each on its own card.

ASSISTANT	WHAT IT DOES
DrillIQ — <i>Your intelligent drilling assistant</i>	Well design, API RP 13D hydraulics, torque and drag, kill sheets and MASP, stuck pipe and losses, and DDR / sensor-log analysis — reading your well and live rig data, with every formula shown.
MudIQ — <i>Your intelligent mud engineering assistant</i>	WBM, OBM and SBM: mud weight and solids analysis, rheology models, contamination treatments, downhole problems and daily mud report summaries — from your latest mud checks, with the math shown.

Before your first question

The first time you open an assistant, **Before you ask** explains:

- **What's sent** — your questions and, while **Use Well & Live Data** is on, your current well's details, latest mud report, string, sections and live rig readings.
- **Who processes it** — Kyanite sends it through the Rork AI gateway to a third-party AI model provider (Anthropic, with OpenAI or Google as backup) solely to generate the answer. Your name and Apple ID are not sent.
- **What's kept** — conversations are saved on this phone only, and you can delete them at any time.

Tap **Agree & Continue** to go on, or **Not Now**.

Quick actions

DRILLIQ	MUDIQ
Today's Summary — drilling activity overview	Analyze Mud Properties — review current mud
Generate Report — daily or shift report	Treatment Recommendation — get specific treatments
Analyze Performance — ROP, MSE & KPIs	Troubleshoot Problems — find and fix issues
Ask a Question — engineering guidance	Generate Mud Report — daily mud summary

Below them, **TRY ASKING** offers example questions — for example *Check my kill sheet: 12.4 ppg, SIDPP 450 psi, TVD 9,850 ft* or *Weight up 800 bbl from 10.2 to 11.0 ppg with barite*.

In a conversation

- **Use Well & Live Data** — on by default when a current well is set. The header shows what is shared: the well, and **Live Data Connected** or **Simulated Data** from Live Rig. Turn it off and answers use only what you type (*General engineering questions*).
- Answers are formatted with headings, tables and the working shown step by step.
- **Generate PDF / Share Conversation PDF** turns the conversation into a PDF to send or file.

- **RECENT CONVERSATIONS** on the assistant's home screen lists past chats. Touch and hold one to **Delete Conversation**.

Engineering aid. Answers can be wrong. Verify calculations against the well program and operator procedures before acting.

Questions and packs

- Ultra includes **100 questions a month**, shared by DrillIQ and MudIQ. One question = one answer.
- The allowance **refills on the 1st** of each month. Unused monthly questions do not carry over.
- **Get More Questions** sells one-time **question packs: Starter Pack** (50), **Value Pack** (100, *Most Popular*) and **Professional Pack** (300, *Best Value*). Not a subscription.
- Pack questions **never expire**, are used only after the monthly allowance, and follow you to your other devices through iCloud Keychain — and to the web console when you are signed in.
- The remaining balance shows at the top of each assistant. When it runs out you see **You're out of questions**, with when your Ultra questions refill and a **Get More** button.

42 Live Rig Dashboard

Home → **Live Rig Dashboard** (Ultra). Hookload, WOB, ROP, gamma, torque, pressures, pit volumes and toolface live from an authorised feed, with time and depth graphs you arrange yourself.

Connecting a data source

Tap **Set up** on the Home card, or the status header on the dashboard, to open **Data Source**:

SOURCE	WHAT IT IS
Simulated	A drilling simulation that runs on this phone, for exploring the dashboard. Always labelled SIMULATED .
WITSML	Any WITSML 1.4.1 store — rig contractor, operator or data aggregator — that you have read access to.
Pason DataLink	Pason's official data delivery service. Choose WITSML Delivery (works now) or DataLink API (switches on once Pason approves the integration for your account). Every value is labelled as Pason DataLink.

For WITSML and Pason, ask your Pason representative or the operator's data team for:

- **Server address**, **Username** and **Password** (kept in the iPhone Keychain)
- **Well UID**, **Wellbore UID** and **Time Log UID** — use the time-indexed log; depth graphs are drawn from its bit and hole depth curves
- Optional **Display Name** (e.g. *Rig 42 · Smith 3H*)

Timing sets **Poll Every** and **Stale Warning After**. **Channel Mapping** matches curves to channels by their usual mnemonics (HKLD, WOB, ROP, GR, SPP, TPO...); type an exact mnemonic to force a match, or **Clear All Overrides**. **Test Connection** checks it before you **Connect**.

Official access only. Kyanite connects only to feeds you are authorised to use, through the published WITSML standard or a Pason-approved DataLink delivery. It never signs in to, scrapes or reads Pason Live or any other web portal.

Reading the dashboard

- **Status header** — **LAST DATA**, **SAMPLES** and the connection state: **CONNECTING**, **SIMULATED**, **STALE** (*No new data for...*), **FEED LOST** (with **Reconnect**), **OFFLINE** or **NOT CONNECTED**.
- **Readouts** — big tiles with the current value. Tap one to **Replace With** another channel, change its **Trace Colour** or **Hide This Readout**.
- **Graphs** — tracks of traces, indexed by **Time** or **Depth**, over the **Time Range** or **Depth Range** you choose.

Customising

Customize dashboard sets **Show Readouts** and **Visible Channels** (readouts appear in the order you turn them on), the **Arrangement** of graphs, **Tracks** (**Add Track**, add a trace to a track, swipe to delete), **Trace Colours** and **Trace Scale**. **Reset Dashboard Layout** returns to the standard 15 channels and 7 tracks.

Display aid only. Always confirm against the rig's EDR and alarms before acting. Live data is held in memory only (up to 12 hours) and is never saved or shared.

43 Your account, cloud sync and Kyanite on the web

Signing in is optional. Without it, everything stays on this phone and works exactly as before. Signing in adds three things:

1. **Your wells and saved calculations sync** to your Kyanite account.
2. They open in the **Kyanite web console** on any computer.
3. Your **Ultra plan and question balance** work on the web too.

Signing in

Settings → Group Access → Sign in with Apple or **Sign in with Google**. It is the same sign-in as Crews — you do not need to join a crew to sync.

Pick one and stick with it. Sign in with Apple and Sign in with Google are separate Kyanite accounts. Use the same one on every phone and on the web.

What syncs

RECORD	SYNCS?
Wells — status, details, hole sections, casing	Yes, both ways
Saved calculations	Yes, both ways
Crew-shared records	Yes, with the crew (chapter 19)
Tours, mud reports, trip sheets, surveys, tallies, strings, bit runs, rig profiles, schematic PDFs, private sheets, inventory and tanks	No — they stay on this phone
Settings, hitch, favorites	No

- **The first time you sign in**, the wells and saved calculations already on the phone are uploaded, so nothing has to be re-entered.
- **When it syncs** — when you save, and about every 15 seconds while the app is open. With no signal, changes wait and go up when you are back in coverage.
- **When two devices edit the same record**, the newest edit wins. A phone that was offline cannot overwrite a newer edit made on the web.
- **Deleting a well** on one side deletes it on the other.

Settings → Kyanite on the Web shows the state: **Sign in to sync**, **Syncing...**, or **Synced** with the time.

Kyanite on the web

Open **app.kyanitepro.com** on any computer and sign in with the same Apple or Google account. You get all 133 calculators, your wells and saved calculations, every crew screen, reports and PDFs, and — with Ultra — DrillIQ, MudIQ and Live Rig, on a big screen with a keyboard. The separate *Web User Manual* covers it.

Signing out

Settings → Group Access → Sign Out. It only affects sync and crew features. Everything stored on the phone stays exactly where it is.

Deleting your account

Settings → Group Access → Delete Account permanently deletes your account from our servers: your profile, your place on every crew, your synced wells and saved calculations, and your question balance. It cannot be undone.

- If you are the **only admin** of a crew, that crew and everything it shares is deleted for everyone on it. The app lists those crews and asks you to confirm.
- The calculators, sheets and records kept on this phone are not affected.

44 Crew wells and crew profiles

Crew wells

Current Well → Crew Dashboard → Crew wells. *Crew wells are the status your whole crew works from. Your own wells stay under Wells.*

- **On Location** lists the crew's active wells; **Archived (rig moved off)** keeps the old ones.
- An admin taps + to **Add crew well** — **Well name**, **Operator**, **API / UWI**, **Field**, **County / region** and **Notes** — and keeps the **Current status** up to date: **MD (ft)**, **TVD (ft)**, **Mud weight (ppg)**, **Active system (bbl)** and **Current operation**.
- **Share one of my wells** offers your personal wells. It **shares a copy**: your own well stays on the phone for calculators, and later edits to either one do not change the other.
- Members read crew wells. They show on the web console under **Crew Wells**.

Your crew profile

Crew Dashboard → My crew profile, or tap yourself on the roster and **Edit my profile**.

FIELD	NOTES
Name on the roster	How the crew sees you.
Position	Pick a common position — Company Man, Toolpusher, Driller, Derrickhand, Floorhand, Motorman, Mud Engineer, Directional Driller, Drilling Engineer, Completions Engineer, Cementer, Solids Control — or type your own.
Company	
Hitch	e.g. 14/14.
Years in the field	
Phone	Lets the crew call you from the roster.
Certifications	WellSharp, H2S, SafeLand...
About	Basins worked, specialties...

Only people on a crew with you can see your profile — on iPhone and the web. One profile follows you to every crew you are on. Deleting your account deletes it.

Tap anyone on the roster to see their profile — position, company, hitch, years **In the field**, certifications and **On the crew since** — with their role and **What They Can Change**. Admins can change their role or **Remove from Crew**.

45 Troubleshooting and FAQ

A calculator didn't fill from the well. The well has nothing in that field (blank is never used), the field doesn't match a well value, or the well you expected isn't the active one. Check the Home card, then the well's Current Status and the section marked **current**.

Shoe depth or LOT didn't fill. Only casing marked **Run and cemented**, with a shoe MD and TVD, counts as the shoe. Planned pipe is ignored on purpose.

The status says it's stale. It hasn't been touched for 12 hours. Update MD, mud weight or any status field, or close a Tour Handover.

My inventory or tanks disappeared after switching wells. They didn't — they belong to the other well. Switch back on Home, or use **Import** to bring them across.

Strokes to bit / bottoms-up strokes show —. Link a rig with a complete pump (liner, stroke, cylinders, efficiency) to the well under **Well Information → Rig**, and enter the current MD.

Buoyed weight shows —. Enter the mud weight on the well.

ROP looks low on a bit run. With no **Drilling hours**, ROP uses elapsed start-to-end time, which includes connections. Enter on-bottom hours.

Translation says it isn't available. Connect to a signal once so iOS can download the Spanish language pack.

A PDF won't open or share. Try again; if it fails, screenshot the alert including its **Code** line and send it to support.

I deleted the app — can I get my data back? Wells and saved calculations, if you were signed in: yes — sign in again with the same account and they sync back. Crew-shared records are still on the crew. Everything else was held only on the phone. Share important records out as PDFs.

My wells don't show up on the web console. Sign in on both with the same account — Sign in with Apple and Sign in with Google are separate accounts. Check **Settings → Kyanite on the Web** says *Synced*, and keep the app open for about 15 seconds.

DrillIQ says I'm out of questions. Ultra's 100 monthly questions refill on the 1st. Buy a question pack under **Get More Questions**; pack questions never expire.

Live Rig shows SIMULATED. You are on the preview feed. Connect a data source under **Data Source** (chapter 42).

I subscribed to Ultra but the web console is still locked. Sign in on the phone under **Settings → Group Access** first, so the purchase is linked to your account, then sign in on the web with the same account and reload the page.

Where's the latest manual? **Settings → User Manual** opens it online; this PDF can be downloaded from the support site.

TERM	MEANING
Active system	Mud in the active pits plus the hole, bbl.
Active well	The well every tool currently works from.
API / UWI	The well's regulatory identifier.
AV	Annular velocity, ft/min.
BHA	Bottom-hole assembly.
Bottoms up	Volume / strokes to circulate from the bit to surface.
DLS	Dogleg severity, °/100 ft.
ECD	Equivalent circulating density, ppg.
EMW	Equivalent mud weight, ppg.
FIT / LOT	Formation integrity test / leak-off test at the shoe.
HSI	Hydraulic horsepower per square inch of bit area.
HWDP	Heavy-weight drill pipe.
IADC dull grade	The eight-box standard for describing a pulled bit.
MAASP	Maximum allowable annular surface pressure.
MD / TVD	Measured depth / true vertical depth, ft.
PVT	Pit volume totaliser.
RKB	Rotary kelly bushing — the usual depth reference.
ROP	Rate of penetration, ft/hr.
TFA	Total flow area of the bit nozzles, in ² .
VS	Vertical section, ft along the VS azimuth.

Appendix A — Calculator index

All 133 calculators, in the order they appear in the app, with the unit of the headline result. **FREE** = usable without a subscription. **NV** = NEEDS VERIFICATION. **ES** = EQUIPMENT SPECIFIC.

The machine-readable version of this index lives at `web-kyanite-support/src/content/calculatorIndex.ts` and is what the published manual renders. Keep the two in step.

Drilling Engineering — 25

Capacity

- Annular Capacity — bbl/ft — **FREE**
- Pipe Capacity — bbl/ft — **FREE**
- Hole Capacity — bbl/ft

Volume

- Annular Volume — bbl
- Pipe Volume — bbl
- Hole Volume — bbl
- Total Well Volume — bbl

Displacement

- Drill Pipe Displacement — bbl
- Drill Collar Displacement — bbl
- Total String Displacement — bbl

Circulation

- Pump Output — bbl/stk — **FREE**
- Pump Strokes — strokes
- Bottoms-Up Time — min
- Surface-to-Bit Time — min
- Bit-to-Surface Time — min
- Total Circulation Time — min
- Lag Time — min
- ROP Calculations — ft/hr

Pressure

- Hydrostatic Pressure — psi — FREE
- Pressure Gradient — psi/ft
- Equivalent Mud Weight — ppg
- Equivalent Circulating Density — ppg
- Kill Mud Weight — ppg
- MAASP — psi
- Trip Margin — ppg — NV

Drilling Fluids — 33

Density & Mixing

- Mud Weight — psi/ft — FREE
- Oil/Water Ratio — % oil
- Raise Oil/Water Ratio — bbl oil
- Lower Oil/Water Ratio — bbl water
- Weighted Fluid Mixing — ppg
- Water Addition — bbl
- Diesel Addition — bbl

Weighting

- Barite Addition — sacks — FREE
- Hematite Addition — sacks
- Volume Increase — bbl
- Dilution — bbl — NV

Rheology

- Plastic Viscosity — cP — FREE
- Yield Point — lb/100ft²
- Apparent Viscosity — cP
- Gel Strength — lb/100ft²
- Fluid Loss — mL/30min

Treatment & Chemistry

- Product Treatment — lb
- Pounds Per Barrel — lb/bbl
- Chemical Concentration — lb
- Retort Calculations — % solids
- Solids — % — FREE
- Low Gravity Solids — % — NV

- High Gravity Solids — % — NV
- Chlorides — mg/L
- Calcium — mg/L
- Alkalinity — mg/L — NV
- Lime Concentration — lb/bbl — NV

System Volumes

- Active System Volume — bbl
- Tank Volume — bbl
- Slug Volume — bbl
- Slug Weight — ppg
- Spacer Volume — bbl

Flow Checks

- Vis Cup Flow Rate — gal/min

Solids Control — 10

Solids Balance

- Solids Percentage — % — FREE
- Low Gravity Solids — % — FREE NV
- High Gravity Solids — % — NV

Dilution & Discard

- Dilution Volume — bbl — NV
- Discard Volume — bbl — NV
- Flow Rate — gpm — FREE

Equipment

- Screen Mesh / Micron — μm
- Centrifuge Calculations — gpm — ES
- Hydrocyclone Calculations — gpm — ES
- Equipment Efficiency — % — NV

Cementing — 19

Slurry Design

- Slurry Yield & Density — ft^3/sk — FREE
- Slurry Density from Yield — ppg
- Mix Water for Target Density — gal/sk

- Additive by % BWOC — lb
- Total Mix Water with Additive Demand — bbl — ES

Volumes

- Sacks Required — sk — FREE
- Slurry Volume from Sacks — ft³
- Annular Cement Volume — bbl
- Casing & Shoe Track Volume — bbl — FREE
- Casing Steel Displacement — bbl
- Cement Column Height & Top of Cement — ft
- Average Hole Diameter — in
- Spacer Volume for Coverage — bbl

Balanced Plug

- Balanced Cement Plug — ft
- Slurry for a Plug Length — bbl

Displacement

- Displacement Volume & Strokes — bbl
- Annular Contact Time — min

Pressure

- Hydrostatic of a Cement Column — psi
- Differential Pressure at the Shoe — psi

Directional & MWD — 23

Survey

- Minimum Curvature Survey — ft — FREE
- Dogleg Severity — °/100ft — FREE
- Interpolate a Survey Station — °
- Closure & Vertical Section — ft

Well Plan

- Build Section Geometry — ft — FREE
- Tangent (Hold) Section — ft
- Build Rate Required — °/100ft
- Project Ahead — ft

Steering

- Slide Footage Required — ft — ES

- Motor Yield from Survey — °/100ft
- Bit Walk Rate — °/100ft
- Toolface for a Correction — ° — NV
- Slide / Rotate Blended ROP — ft/hr

Ouija

- Ouija · New Angle & Direction — ° — ES
- Ouija · Tool Face & Course Length — ° — ES

MWD Sensors

- Inclination from Accelerometers — °
- Azimuth from Magnetometers — °
- Magnetic Dip Angle — °
- Magnetic Total Field QC — nT
- Toolface from Sensors — ° — ES
- True & Grid Azimuth — °
- Telemetry Transmission Time — s
- MWD Battery Life — hr — ES

Well Control — 23

Pressure & Gradient

- Hydrostatic Pressure — psi — FREE
- Formation Pressure from SIDPP — psi
- Equivalent Mud Weight — ppg
- Equivalent Circulating Density — ppg

Kill Sheet

- Kill Mud Weight — ppg — FREE
- Initial Circulating Pressure — psi
- Final Circulating Pressure — psi
- Pressure Step-Down Schedule — psi/100 stk
- New Pump Pressure with New SPM — psi
- New Pump Pressure with New Mud Weight — psi

Casing Shoe Limits

- Maximum Allowable Mud Weight — ppg
- MAASP — psi — FREE
- MAASP After Kill — psi
- Riser Margin — ppg

Kick Analysis

- Influx Height — ft
- Influx Gradient & Density — psi/ft
- Gas Expansion (Boyle's Law) — bbl

Circulation

- Strokes & Time — stk
- Kill Circulation Strokes — stk
- Capacity & Fluid Height — bbl/ft

Gas Migration

- Gas Migration Rate — ft/hr
- Volume to Bleed (Volumetric) — bbl
- Slug: Level Drop & Returns — ft

Appendix B — Privacy Policy

Effective 14 October 2026. The version on the support website is the legally operative one; this copy is reproduced for reference.

Summary

There is no analytics, no advertising and no tracking. Every calculator, chart and sheet works with no account and no signal, and what you enter is held in local storage on your own device.

A few things are different, and all of them are your choice.

Subscriptions contact our subscription provider. If you **sign in** with Google or Apple, your own wells and saved calculations sync to your account so they open in the **Kyanite web console**, and records you share with a **Crew** are stored on our servers so your crew can see them.

DrillIQ and MudIQ send your question to an AI provider to answer it. If you never sign in, nothing you enter leaves the device except a question you choose to ask DrillIQ or MudIQ.

1. Who we are

Kyanite Pro is developed and published by Kyanite Holdings (“we”, “us”). This policy covers the Kyanite Pro iOS application, the Kyanite web console, the kyanitepro.com website and this support website. An Android app is in development; when it ships, this policy will cover it too. If you have any question about it, write to us at admin@kyaniteinc.com.

2. Using the app without an account

The app has no sign-up wall. Calculators, reference charts, kill sheets, cement jobs, LCM build sheets, inventory, location volumes and notes all work with **no account and no login**. If you work alone, you will never be asked who you are, and this section is the only one about accounts that applies to you.

Signing in is only needed for Crews, for using your records in the web console, and for using an Ultra plan on the web. It is entirely optional and you can use every other part of the app indefinitely without it.

3. Information you enter, and where it lives

The app is designed for you to put real work into it. That includes:

- Wells — names, operator, API number, depths, mud weight and hole sections
- Saved calculations and gain/loss data sheets
- Location volumes — tanks, daily gauge readings and tank groups
- Chemical inventory products, daily ledger entries and inventory history
- LCM build sheets and cement job sheets
- Kill sheets, including pre-recorded well data
- Field notes, and the rig or well you tag them with
- Your hitch rotation, favorites, shaker screen records and app settings

By default all of this is stored **only on your device**, in the app’s private local storage. It is never transmitted to us, and we have no technical means of accessing it.

There are two exceptions. If you sign in, **your own wells and saved calculations** are copied to your account so they open in the web console; only you can read them, and edits made on either side sync to the other. And records you explicitly share with a crew are described in the next section. Inside the app these two sets are kept visibly separate: each shared screen has a **Mine / crew** switch, and anything under “Mine” stays on the device.

If your device is backed up to iCloud or to a computer, that local storage may be included in your own backup. That backup belongs to you and is governed by Apple’s privacy policy, not ours.

4. Crews: signing in and sharing records

Crews let the hands on one location keep the same figures in front of them. It is opt-in and it requires an account, because there is no way to show a record to your crew and nobody else without knowing who is who.

When you sign in, you authenticate with Google or Apple. We never see or store your password. We receive and store a user identifier, your email address and your display name, and we use them for one purpose: showing your crewmates who is on the roster and who last changed a record.

When you share records with a crew, copies of those records are stored on our backend so the other members can read them. Depending on what you share, that can include:

- Crew wells — name, operator, API number, current depth, mud weight and status
- Gain/loss data sheets and their hourly readings
- Tanks, gauge readings and tank groups
- Inventory products and daily ledger entries
- LCM build sheets, kill sheets and cement job sheets
- Field notes and the rig or well you tag them with

Crew profile. You may fill in an optional work profile — position, company, phone number, hitch pattern, years in the field, certifications and a short bio. It is shown only to people who are on a crew with you, never publicly, and every field is optional. You can change or clear it at any time.

Each shared record also carries who last changed it and when, so a crew can trace a figure back to a person. Please keep in mind that a shared note or sheet is visible to everyone on that crew — treat it as a crew record, not a private one, and do not put personal information into it.

Invites are sent by email. When you invite someone, we store the email address you entered and an invite code so the invitation can be redeemed. Invites expire.

Access control. Only members of a crew can read that crew's records. This is enforced on the server, not just in the app.

Crew notifications. If you turn notifications on, we store a push token issued by Apple for that device, alongside your account, so an alert can reach the right phone. It is not your Apple ID and it cannot be used to identify you outside this app. The token is deleted when you sign out, and when Apple tells us it is no longer valid. Alerts say only who changed what area, for example “Mike updated 3 tank gauge readings” — never a calculated figure. We also record a short crew activity entry (who, which area, how many records and when) so the same updates can be read in the app. You may turn notifications off, or mute a whole crew or individual areas, at any time in Group Access > Notifications.

Leaving and deleting. Removing a shared record marks it as deleted for the whole crew. You can delete your account at any time in the app under Settings > Group Access > Account. That immediately erases your account, crew memberships, crew profile, synced wells and calculations, question balance, push tokens and linked subscription status from our servers; crews where you were the only

admin are deleted with it. Records you contributed to a crew that continues may remain visible to that crew as part of their operational history, in the same way a figure you wrote on a paper sheet stays on the sheet. You can also write to admin@kyaniteinc.com and we will action it.

5. The web console

The Kyanite web console runs in your browser. Calculators work there with no account. When you sign in with the same Google or Apple account you use on iPhone, it reads and writes the same records described above — your own wells and saved calculations, and your crews' shared records — under the same access rules. Your sign-in session, settings and DrillIQ / MudIQ chat history are kept in your browser's local storage on that computer; signing out clears the session. Printing or saving a report as PDF happens entirely in your browser.

6. DrillIQ and MudIQ (Ultra)

When you ask an Ultra assistant a question, your question, the conversation so far and — if “Use well data” is on — a summary of your active well are sent through Rork's AI gateway to the model provider that produces the answer. They are used only to answer you, not for advertising. Do not include personal information in a question. Your monthly question allowance and any question packs are recorded against your account so the same balance works on iPhone and the web.

7. Who processes your data

We keep the list of third parties as short as we can. They act as our processors and are not permitted to use your data for their own purposes:

- **RevenueCat, Inc.** — subscription status. Receives purchase history for this app and an anonymous installation identifier randomly generated by RevenueCat. It is not your Apple ID and not your advertising identifier. When you are signed in, your purchases are linked to your Kyanite account id so an Ultra plan also works in the web console.
- **Supabase, Inc.** — hosts the database that stores accounts, crew membership, crew profiles, shared crew records, your synced wells and calculations, and messages sent through the kyanitepro.com contact form. Only holds account data if you sign in.
- **Rork, Inc.** — hosts the web console and websites, provides sign-in and routes DrillIQ / MudIQ questions through its AI gateway to the model provider that answers them.

- **Google or Apple** — whichever you choose to sign in with, acting as your identity provider.
- **Apple Push Notification service** — delivers crew notifications to your device. Only used if you sign in, join a crew and turn notifications on.

We do not use analytics, crash reporting, advertising networks or attribution tools, and we do not sell or share personal information.

8. Network access

The app makes network requests for these reasons, and no others:

- To start, restore or verify a Kyanite Pro subscription
- To sign you in, if you choose to
- To sync shared crew records, if you are in a crew
- To sync your own wells and saved calculations, if you are signed in
- To answer a DrillIQ or MudIQ question you ask
- To register your device for crew notifications, if you turn them on

No calculation, chart or sheet requires a connection. Once your subscription has been confirmed, the result is cached on the device and the app keeps working with no signal for up to 30 days before it needs to check in again. Crew records you change with no signal are held on the device and go up the next time you have coverage. This is a deliberate design decision for work on location, where a rig may have no coverage for an entire hitch.

9. Sharing outside the app

Where the app offers a share option, the content is handed to the standard iOS share sheet and what happens next is entirely your choice — you may mail it, save it to Files, AirDrop it or print it. The app itself does not send anything anywhere, and we receive no copy.

10. Contacting us

The suggestion form in Settings, and the contact buttons on this website, compose a message and hand it to your own email app. Nothing is transmitted by the application itself. If you choose to send that email, we will of course receive your email address and whatever you wrote.

The contact form on kyanitepro.com stores your name, email address, the optional company and role you enter, the topic and your message in our database so we can reply.

Either way, we use what you send for one purpose only: replying to you and acting on your feedback. We do not add you to a mailing list, and we do not pass your message to anybody else.

11. Permissions

The app requests one permission, and only if you ask for it: **notifications**. You are asked in Group Access > Notifications, after you tap to turn them on — never when you open the app, and never anywhere in the offline calculator side. If you never open Group Access you are never asked, and declining leaves everything working; the same updates appear in the in-app activity list.

Nothing else is requested. The app does not use the camera, the microphone, location services, contacts, the photo library, Bluetooth or health data. “Location Volumes” refers to the tanks on your location — it does not use your device’s location.

12. Children

The app is a professional tool intended for people working in the oil and gas industry. It is rated 4+ because it contains no objectionable content, but it is not directed at children and we do not knowingly collect information from them.

13. Your rights

Data protection laws such as the GDPR and the CCPA give you rights to access, correct, export and erase personal data held about you. If you have never signed in, we hold nothing that identifies you and there is nothing for us to disclose or delete. If you have signed in, write to admin@kyaniteinc.com and we will provide a copy of the personal data associated with your account, correct it, or delete your account, within the timeframes the law requires. You can also delete your account yourself in the app at any time.

The information inside the app is under your direct control at all times: you can edit or delete any record from within the app, and removing the app removes the local copy from your device.

We do not sell or share personal information.

14. Retention

Local records stay on your device until you delete them or delete the app. Synced personal records, your crew profile and account details are kept until you delete them or your account. Crew records are kept for as long as the crew is in use. Contact-form messages are kept only as long as

needed to handle your request. Subscription records are retained by our subscription provider for as long as needed to honour your entitlement.

15. Purchases and subscriptions

Kyanite Pro and Ultra are auto-renewing subscriptions, and DrillIQ / MudIQ question packs are one-time purchases, all sold through the Apple App Store. Nothing is sold on the web. Payment is handled entirely by Apple. We never see your payment details, your card number or your billing address, and Apple's handling of your purchase is covered by Apple's own privacy policy.

You can cancel at any time in Settings > Apple Account > Subscriptions; the subscription renews unless cancelled at least 24 hours before the end of the current period.

16. These websites

This support site and kyanitepro.com are static pages apart from the contact form above. It sets no advertising or tracking cookies and runs no analytics. Our hosting provider may keep standard server logs, such as IP addresses and requested pages, for security and reliability purposes; we do not use those logs to build any profile of you.

17. Changes to this policy

If this policy changes, the revised version will be published on this page with a new effective date. Where a change materially affects what leaves your device, we will describe it here plainly.

18. Contact

Questions about this policy can be sent to admin@kyaniteinc.com. See also our [Terms of Use](#).

Appendix C – Terms of Use

Effective 14 October 2026. The version on the support website is the legally operative one; this copy is reproduced for reference.

Engineering disclaimer

Kyanite Pro is a calculation and reference aid. It is not a well control program and it is not a substitute for engineering judgement, training, competency or your employer's procedures. All results must be independently verified by qualified personnel before any operational decision is made.

1. Agreement

These Terms of Use form an agreement between you and Kyanite Holdings covering your use of the Kyanite Pro application and this website. By downloading, purchasing or using the app you accept these terms. If you do not accept them, do not use the app.

Your purchase is also subject to Apple's App Store terms, including the Licensed Application End User License Agreement. Where those terms grant you rights that these terms do not, Apple's terms apply.

2. Licence

We grant you a personal, non-exclusive, non-transferable licence to install and use the app on devices you own or control, in line with the App Store terms and the rules of your Apple Account.

The app is free to install. Kyanite Pro, an auto-renewing subscription, unlocks the full calculator library, kill sheets, cement jobs, LCM build sheets and inventory reports. It is offered at **\$3.99 per month with a 3-day free trial**, or **\$19.99 per year**. Prices in other territories are set by Apple's equivalent price points and may differ.

Payment is charged to your Apple Account at confirmation of purchase. The subscription renews automatically unless it is cancelled at least 24 hours before the end of the current period, and your account is charged for renewal within 24 hours of the end of that period. Any unused portion of a free trial is forfeited when you buy a subscription. You can manage or cancel your subscription in Settings > Apple Account > Subscriptions. Refunds are handled by Apple, not by us.

You may not:

- copy, redistribute, resell, rent or sub-licence the app;
- reverse engineer, decompile or disassemble it, except to the extent that applicable law expressly permits it;
- remove or obscure any notice of ownership within the app; or
- extract the calculation library, reference charts or other content for use in a competing product.

3. Professional use, and the limits of this tool

This section is the most important part of these terms.

The app is a professional aid intended for trained oil and gas personnel. It performs arithmetic and presents reference data. It has no knowledge of your well, your equipment, your formation, your regulatory regime or the conditions on your location, and it cannot exercise judgement.

It is not a well control program, a safety system, a certification tool or an engineering authority. The well control calculators and the kill sheet exist to check your arithmetic and to keep your pre-recorded data current. They do not make decisions. All well control decisions must follow the operator's and the drilling contractor's well control program and the direction of the person in charge on location.

Every calculator in the app displays its equation, its units, its assumptions and a verification status of VERIFIED, NEEDS VERIFICATION or EQUIPMENT SPECIFIC. You are responsible for reading that status and for confirming that the equation, the assumptions and the units are appropriate to your situation before you act on a result.

You remain solely responsible for verifying every result against your own company's standards, published equipment data and applicable regulations, and for all decisions taken on the basis of them. Nothing in the app creates an engineering, advisory or professional relationship between you and Kyanite Holdings.

4. Your data and your records

Records you create in the app are stored on your device by default. Deleting the app, losing the device or resetting it will destroy those records permanently, and we cannot

recover them because we never hold a copy. You are responsible for keeping your own copies of anything you need to retain.

If you use Crews, records you share are also stored on our servers so the rest of your crew can read them. Sharing is a deliberate act: each shared screen has a Mine / crew switch, and nothing moves to a crew until you choose it. Treat a shared record as a crew record — everyone on that crew can see it, and it may remain part of that crew's operational history after you leave. Do not put personal information into shared records, and do not share records you are not entitled to share under your employer's or the operator's confidentiality rules. See our [Privacy Policy](#) for the full detail.

5. Accounts and crews

An account is required only for Crews. You sign in with Google or Apple, and you are responsible for keeping access to that account secure and for the activity that takes place under it.

A crew admin can add and remove members and change their roles. Every member of a crew needs their own active Kyanite Pro subscription. We may suspend or remove an account that is used to abuse the service or another user.

6. No warranty

The app is provided “as is” and “as available”, without warranty of any kind, whether express or implied, including any implied warranty of merchantability, fitness for a particular purpose, accuracy or non-infringement.

We have tested the calculation engine extensively and it is covered by an automated test suite worked against known values. Even so, we do not warrant that the app is free of errors, that any result is accurate or suitable for your particular application, or that it will operate without interruption.

7. Limitation of liability

To the fullest extent permitted by law, Kyanite Holdings shall not be liable for any indirect, incidental, special, consequential, punitive or exemplary damages, nor for any loss of profit, revenue, production, data, wellbore, equipment or business opportunity, arising out of or in connection with your use of, or inability to use, the app — whether based in contract, tort, negligence, strict liability or otherwise, and even if we have been advised of the possibility of such damages.

To the fullest extent permitted by law, our total aggregate liability arising out of or in connection with the app shall not exceed the amount you actually paid for it.

Some jurisdictions do not allow the exclusion of certain warranties or the limitation of liability for certain damages. Where that is the case, the exclusions and limitations above apply to you only to the extent permitted in your jurisdiction, and nothing in these terms limits liability for death or personal injury caused by negligence, or for fraud.

8. Indemnity

You agree to indemnify and hold harmless Kyanite Holdings against any claim, loss or expense arising from your use of the app in breach of these terms, or from any operational decision you take on the basis of a result the app produced.

9. Purchases and refunds

The app is sold through the Apple App Store. All payments, receipts and refunds are handled by Apple under Apple's terms — we cannot process a refund ourselves. If you believe you are entitled to one, request it through Apple's “Report a Problem” process. If something in the app is not working as described, please contact us first at admin@kyaniteinc.com; we would far rather fix it for you.

10. Updates and availability

We may release updates that change, add or remove features. We may also stop distributing or supporting the app. We will not remotely disable a copy you have already purchased and installed, and because the calculators and sheets run entirely on the device they will continue to function as long as your device supports them. Crew sharing depends on our servers and, like any online service, is not guaranteed to be available without interruption.

11. Intellectual property

The app, its interface, its calculation library, its reference charts and its report layouts remain the property of Kyanite Holdings and are protected by copyright. The underlying engineering formulae are, of course, industry standards in the public domain and belong to nobody — but their particular selection, arrangement, presentation and implementation here do not.

The records you create in the app are yours. We claim no ownership over your inventory, your job sheets or your notes.

12. Changes to these terms

We may revise these terms from time to time. The current version is always published on this page with its effective date. Continuing to use the app after a revision means you

accept the revised terms.

13. Contact

Questions about these terms can be sent to admin@kyaniteinc.com.